



TELEPHONE: CENTRAL 3617
TELEGRAMS: "CHEMICUS,
CANNON, LONDON" (2 Words)

No. 2257.

PUBLISHED WEEKLY AT 42 CANNON ST., LONDON, E.C. 4

REGISTERED AS A NEWSPAPER.

APRIL 28, 1923.

SUBSCRIPTION, WITH
DIARY 20/- PER ANNUM
SINGLE COPIES 9d

Vol. XCVIII.

A Full Range of PACKED DRUGS (own name) for the Pharmacist

Reap the benefit of our experience and exceptional facilities for manufacturing and packing. The products are of the highest standard of pharmaceutical excellence, and the packings in a variety of attractive and distinct styles. Special attention is paid to designing and printing the labels and to inserting the customer's own name and address in an artistic manner. Each package has had that finishing touch which is appreciated so much by the public and reflects credit on the retailer.

THE PRICES ARE RIGHT

Special Quotations and Samples on request.

Full List of these Preparations in Section 4 of Price List.

Allen & Hanburys, Ltd. Bethnal Green, London, E.2.

Telephone :
BISHOPSGATE 1122 (six lines).

Telegrams :
"ALLENBURY" LONDON.

WRIGHT, LAYMAN & UMNEY, LTD.

draw attention to Effervescent Preparations.

Wright's Effervescent Fruit Saline.

An alluring display of luscious fruits, in their natural colours, is artistically represented on labels and cartons.

The Saline is in small grains, pours freely from the bottle, and gives prolonged effervescence. It is a product of the highest standard of excellence.

Minimum Retail Price **1/9** per bottle.
Per dozen **14/6**

Sudden spells of mild weather in the springtime cause immediate demand for effervescent preparations

It is a sound policy to have the goods in stock, ready for instant display.

The following are a few selections from our Illustrated Catalogue. Many styles of label and carton are available.

Universal Grape Saline
Effervescing Saline
Effervescent Universal Saline
Granular Effervescent Citrate of Magnesia
Effervescent Health Salt
Invigorating Health Salt
Hygeia Salt
Phosphorised Liver Salt
Effervescent Liver Saline
Effervescent Sulphur Saline
Artificial Carlsbad Salts
&c., &c., &c.

Customer's name and address printed on labels without charge, for usual quantities.

Wright's Liver Granules.

The Sparking Morning Draught.

However efficacious they may be, the brackish flavour of the aperient mineral salts is objectionable to everybody.

It is hardly possible to devise a more agreeable method of administration than is offered in
WRIGHT'S LIVER GRANULES.

The flavour is both pleasing and refreshing.

The design of the lever lid tin is quiet but attractive, with convincing letterpress.

Minimum Retail Price **8½d.**

Per dozen **6/-**

WRIGHT, LAYMAN & UMNEY, LTD.
SOUTHWARK, LONDON, S.E.1

"THE WIGGLESWORTH WAY"

FROM
A
CHEMIST
IN A
TOWN
WITH A
POPULATION
OF
52,000.

March 24th, 1923.

Kindly send particulars of C. & D.
Advert.

March 29th, 1923.

Please send 1 cwt. of ———(?)
(2 Window Displays).

April 15th, 1923.

Rail Urgent: Another cwt. ———(?)

He sent
a P.C.
Did you
?

Copy of "C. & D." advert., March 24, 1923:

**We have struck
another "Winner"**

A REAL SUMMER WINDOW OR COUNTER
LINE THAT WILL SELL READILY. BRING
REPEATS AND FURTHER CONVINCE YOU
OF THE APTITUDE OF

"THE WIGGLESWORTH WAY"

FOR OPENING THE PUBLIC PURSE.

FOR REASONS WE CANNOT EXPLAIN
HERE, WE ARE NOT PREPARED AT THIS
MOMENT TO GIVE ANY MORE DETAILS OR
CLUES AS TO WHAT THIS NEW LINE IS.

BUT IF YOU CONSIDER YOUR SUMMER
WINDOW SALES NEED "GINGERING UP"
WE INVITE YOU TO SEND US YOUR P.C.—
BY RETURN, BACK WILL COME A SAMPLE
AND ALL DETAILS ABOUT THE PRODUCT,
THE DISPLAY, AND THE PROFIT.

WE SHALL PLACE IT IN EACH DISTRICT
WITH DUE REGARD TO OUR NON-
CLASHING POLICY WHERE ORDERED IN
QUANTITY.

BE THE FIRST WITH THAT P.C.

WIGGLESWORTH, LIMITED

Makers of Pack'd Pharmaceutical Specialities,

WESTHOUGHTON - - - LANCS.

Telegraphic Address :
"DAQUEZ, ALD
LONDON."

ESTABLISHED OVER A CENTURY.

Telephone No.:
AVENUE 97

I. & M. COHEN

(INTERNATIONAL SPONGE IMPORTERS, LTD.)

BRANCH

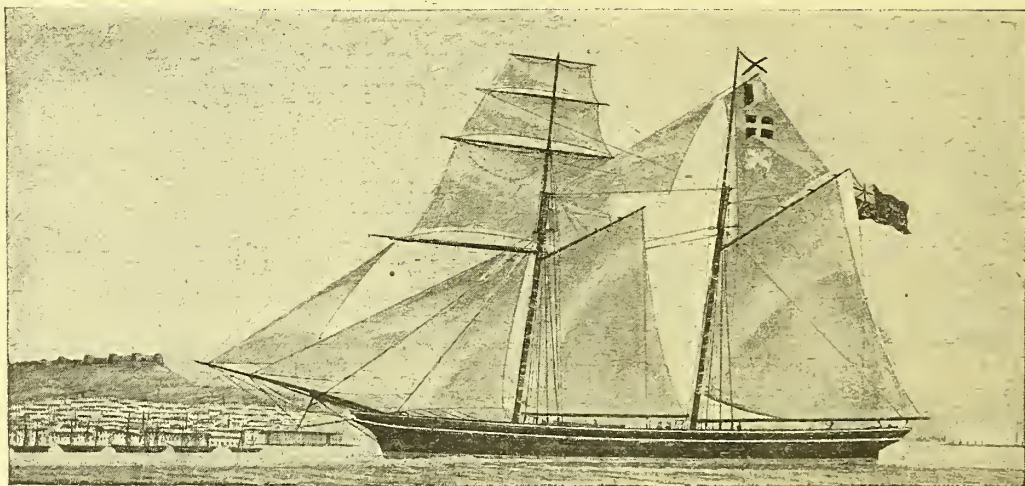
Sponge Merchants, Importers and Exporters,

CHAMOIS LEATHER DRESSERS, and

PROPRIETORS of the ABLUTONIC BRAND of "RUBBER SPONGES."

AGENTS FOR NADCO DYES.

Contractors to the Government, Railways and Steamship Companies, etc.



'Welcome,' of London, I. Cohen, master, entering Smyrna Bay, 1864.

In the year 1874 I. & M. COHEN were the first and only House to import sponges direct from the Mediterranean in their own ship the schooner "Welcome."

"IMPORTANT NOTICE"

I. & M. COHEN are continually receiving complaints from *the Trade* that orders intended for them have, under a misapprehension, been given to a person or persons who have adopted a somewhat similar trade name with whom they have no connection directly or indirectly. To avoid any mistakes customers are kindly asked to note that all orders and communications intended for I. & M. COHEN should be *carefully and fully addressed as follows* :—

I. & M. COHEN,

"The White House"

53/4 Houndsditch,

LONDON, E.1.

I. & M. COHEN take this opportunity of thanking customers for past favours, and will, as heretofore, use their best endeavours to give satisfaction, all orders receiving prompt and personal attention, and goods supplied at the lowest possible prices consistent with a reliable article.

! Are you "Obliging" the Customer——at your own expense?

21st April, 1923.

Dear Sirs,

Quick Turnover - Small Space - and NO DEAD STOCK.

Have you ever figured out whether the ordinary soda-syphon trade is a paying proposition -- or a losing one -- for you? Many retailers feel strongly that it obliges the customer -- at the retailer's expense.

SPARKLETS SYPHONS please the customer and pay you. They turn over quickly. They take up very little space. They are easy-to-handle, and easy-to-deliver. And there is nothing to take-back from the customer.

You get more actual NET PROFIT by selling Sparklet Syphons; and the resulting continuous demand for the little Sparklet Bulbs is all "cream" for you.

Sparklet "C" Syphon.

Retails at 10/6 each (P.A.T.A.).

Price to You: 93/- per doz., less 5% 14 days.

A Free Box of Bulbs with each Syphon.

Sparklet Bulbs.

"C" size retail at 3/6 box of 12.

Price to You: 33/- per doz. boxes.

"B" size retail at 2/4 box of 12.

Price to You: 22/- per doz. boxes.

All Bulb prices less 5% 14 days; and extra discounts for 12 doz. boxes and upwards.

Everybody knows Sparklets. Show them against our attractive free display matter -- and they sell themselves.

And remember -- with Sparklet Syphons, THERE IS NO FEAR OF DEAD STOCK. If you have any "C" Syphons left over at the end of the Summer, we will take them back at full invoice value. Can anything be fairer?

Send us your order straightaway -- because the profit will be yours -- and the risk will be ours.

Yours faithfully,
SPARKLETS LIMITED

L. Stuart Macdonald

Sales Director.



There
is no better
Tonic
in cases of Anæmia,
Convalescence, Neurasthenia
than
Serravallo's Tonic

(Bark & Iron Wine)
Delightful taste.

Maintains a World-wide reputation
of over 30 years' standing.
Awarded 24 Medals.
Over 9000 Medical Testimonials.

Good Profits Assured.
Free supplies of handsome advertis-
ing matter and samples for
medical men.

Correspondence invited.

Agents:

LONDON: W. Suter & Co., 12 Edmund
Place, E.C. 1

NORTHUMBERLAND, DURHAM:
W. Glendinning & Sons, Ltd.
33 St. Mary's Place, Newcastle-on-Tyne.

IRELAND: Alfred Willington, 8/10 Princes
Chamber, Ann Street, Belfast.

J. Serravallo,
Manufacturing Chemist,
Trieste-Barcola,
Italy.



Telegrams:
"Serravallo Barcola"

A B C Codes
4th and 5th Editions

INDEX TO ADVERTISERS

Addis, R., & Son (Brushes)	29	Christy, T., & Co., Ltd. (Lanoline, Quin-Quenna, etc.)	60-68	Genatosan, Ltd.	xvii
Allen & Hanburys, Ltd. (Packed Drugs)	Cover	Cohen, I. & M. (Sponges)	2	George, E. J. (Stocktaking) .. Col. Supp.	x
Allen, R. H., & Co. (Boracic Socks) ..	36	Corrugated Packing Materials Co., Ltd. (Corrugated Paper, etc.)	38	Gibbins, R., & Co. (Tablets)	x
American Drug Supply Co., Ltd. (Tooth Powder)	xviii	Cow & Gate Milk Food	7	Glaxo (Food)	43-44
Anglo-American Oil Co., Ltd. (Emulsions)	20	Cox, Arthur H., & Co., Ltd. (Aspirin, etc.)	19-Text	Glew, F., Harrison (Radium Comp. pound)	Col. Supp.
Anglo-French Drug Co., Ltd.	xiv	Cresswell Bros., Branch Intl. Sponge Importers, Ltd. (Sponges)	30	Goodall, Backhouse & Co. (Spring Salines, etc.)	40
Arco, Ltd. (Russian Crude Drugs, etc.)	xv	Crusader Rubber Co., Ltd. (Hot Water Bottles)	37	Gough, Kidston & Co. (Petro Jelly) ..	xxvi
Arnfield, J. C., & Sons, Ltd. (Drugs) ..	iv	Cuff, J. H., & Sons (Fly Oil)	52	Gower, J. (Books)	Col. Supp.
Association of Manfg. Chemists, Ltd. Col. Supp.		Daisy Ltd.	xvi	Greeff, R. W., & Co., Ltd. (Chemicals) ..	8-9
Ayrton, Saunders & Co., Ltd. (Wholesale Druggists)	15	De S. N. (Fistula Pods, etc.)	viii	Griffin, J. J., & Sons, Ltd. (Pharmaceutical Machinery)	59
Baiss Bros. & Co., Ltd. (Chemicals) ..	xiv	Dearborn (1923), Ltd. (Toilet Specialties)	24	Grout & Co. (Norvic Crêpe Bandage) ..	34
Bandoeng Quinine Factories	xiv	Dee Oil Co., Ltd. (Petroleum Jelly) ..	xxvi	Guest, T., & Co., Ltd. (Lozenges, etc.) ..	48
Barker, R., & Son, Ltd. (Infants' Preservative)	44	Denver Chemical Manfg. Co. (Antiphlogistine)	xx	Haller Laboratories, Ltd. (Danysz Virus)	52
Barlow, J. (Bromide Post Cards, etc.) ..	61	Dodge & Olcott Co. (Essential Oils) ..	68	Hampshire, F. W., & Co., Ltd. (Snow-fire Soap)	26
Battin, H., & Co., Ltd. (Liquorice Root)	viii	Douglas Kirby & Co. (Monkey Strop) ..	26	Harker, C. R., Stagg & Morgan, Ltd. (Peldo)	64
Beecham, Thomas (Pills)	xxiv	Dubarry et Cie (Bath Soap)	Cover	Harley, T. (Rat Poison)	52
Benger's Food, Ltd.	68	Duncan, Flockhart & Co. (Organic Therapeutical Preps.)	vii	Harpic Mfg. Co.	Text
Bengue, Dr., & Co.	xxii	Edwards Harlene, Ltd. (Hair Preps.) ..	21	Harris, Hart, & Co., Ltd. (Epsom Salts, etc.)	vi
Berdoe & Fish	Col. Supp.	Eno, J. C., Ltd. (Fruit Salt)	i	Harrison, W., & Co., Ltd. (Talcum Powder)	26
Berkefield Filter Co. (British)	xxiv	Essences & Synthetics, Ltd. (Ess. Oils) ..	ii	Harvey & Co. (Dublin), Ltd. (Veterinary)	52
Berton, Arthur, Ltd. (Bathing Caps, etc.)	36	Eucryl, Ltd. (Toilet Preps.)	18	Henry, T. & W. (Calcined Magnesia) ..	xi
Bewells, Ltd. (Little Black Divils) ..	xviii	Evans Sons Lescher & Webb, Ltd. (Sponges)	13	Heward, R. H., Co. (Surgical Appliances, etc.)	36
Bourjois, A., & Cie, Ltd. (Face Powders)	28	Evan-Williams Co., Ltd. (Henna Shampoos)	20	Hind & Lund, Ltd. (Machinery)	59
Bramwell, E., & Son, Ltd. (Chemicals) ..	ix	Express Developing Co. (Developing, etc.)	61	Hoffmann La Roche Chemical Works, Ltd. (Santonin, etc.)	viii
Brand & Co., Ltd. (Foods)	43	Fairy Dyes, Ltd. (Home Dyes)	xxx	Hollandische Melksuikerfabriek	xviii
Bredt, W. (Bromural)	viii	Farmer, F., & Co. (Vermin Killer)	60	Horlick's Malted Milk Co.	45
Britex Chemical Products, Ltd. (Bristol Preps.)	52	Farrow & Co. (Bottles)	56	Hornby & Co. (Tinware)	57
Burge, Warren & Ridgley, Ltd. (Enemas)	39	Fassett & Johnson (Whirling Sprays) ..	34	Howard Lloyd & Co., Ltd. (Tablets, etc.)	xi
Burgoyne, Burbidges & Co., Ltd. (Fruit Saline)	41	Fax, Ltd. (Proprietary)	xiv	Hubbuck, T., & Son, Ltd. (Oxide of Zinc)	x
Burkett, Sharp & Co., Ltd. (Chemicals)	vi	Field, C. W., Ltd. (Saponine Powder, etc.)	x	Huisking, C. L., Inc. (American Drugs)	xiv-xxii
Burrough, J., Ltd. (Absolute Alcohol) Text		Fink, F., & Co. (Gums)	60	Humagsolan, Ltd. (Hair Food)	6
Burroughs Wellcome & Co. (Laxamel) ..	67	Forbest, Ltd. (Developing)	61	Jakson, J., & Co. (Mitcham Rd. 1921), Ltd. (Ess. Oils)	22
Cartwright, W. R., Ltd. (Elfrida Toilet Series)	31	Ford, Shapland & Co., Ltd. (Sanitary Paper)	xxx	James Cycle Co., Ltd. (Carrier Cycles) ..	53
Castle Huskisson Ltd. (Tablets, etc.) ..	xii	Ford, T. H., Ltd. (Crepe Bandages)	39	Johnson & Sons (Mfg. Chts.), Ltd. (Chemicals)	iii
Cavendish Chemical Corporation	xx	Forshaw, E., & Son, Ltd. (Machinery) ..	58	Johnson, C. W., & Co. (Olive Oil) ..	xxviii
Cellophane Co. (Wrapping Material) ..	50	Potoco (1923), Ltd. (Developing)	60	Josephs, Philip & Sons, Ltd. .. Col. Supp.	
Cheltine & Manhu Foods Co. (Dietetic Food)	43	Pougera, E., & Co., Inc. (Medicinal Preps.)	xv	Kent, G. B., & Sons, Ltd. (Brushes) ..	12
Christie & Hodgson, Ltd. (Developing, etc.)	61	Frankenberg, L. (Razors, etc.)	53		
		Fullwood, R. J., & Bland (Rennet)	42		
		Garratt, J. E. (Newskin)	54		

[Continued overleaf.]

ON EVERY

SOLD BY CHEMISTS.



GENUINE PACKAGE.

Eureka

WEED KILLER

THE BEST KNOWN & LARGEST SALES.

FULL
STRENGTH.
ALWAYS
EFFECTIVE.

POWDER AND LIQUID QUALITIES.
PROMPTLY SUPPLIED TO MEET RAILWAY
REGULATIONS AND ALL REQUIREMENTS.

WRITE FOR TERMS AND SPECIAL ADVERTISING ARRANGEMENTS.

TOMLINSON & HAYWARD, LTD., LINCOLN
ONLY MAKERS.

INDEX—cont.

Kerfoot, T., & Co., Ltd. (Distol Ottos) .. 17	Palmolive Co. (of England), Ltd. (Soap) .. 65	Sponge Fishing & Importing Co., Ltd. 12
Khamhata, J., & Co. (Tartaric Acid) vii	Parke, Davis & Co. (Tooth Paste) .. xxi	Stambois, L. J. (Gillette Blades, etc.) 53
King, J. C., Ltd. (Duplicate Books) .. xxv	Parker, Ward & Co., Ltd. (Sulfuric) .. xxv	Stearns, F., & Co. (Esterol) .. viii
Kirby, H. T., & Co., Ltd. (Lavender Moth Tablets) .. 50	Pears, A. & F., Ltd. (Transparent Soap) 25	Sterns, Ltd. (Oils, Petroleum, etc.) xxvii
Lang, Jules & Son (Glassware) 57	Pharmaceutical Lanoline Co. (Lanoline) .. xxvi	Stevenson, H. E., & Co. (Synthetic Ottos, etc.) .. 51
Leslie's Developing Service .. 60	Photopress (Developing, etc.) .. 60	Stubbs, H. H. (Clothhall) .. 39
Lincoln & Midland Counties Drug Co., Ltd. (Clarke's Blood Mixture) xix	Physikurate, Ltd. (Propy) .. xxii	Sutton, G. F., Sons & Co. (Ammonia) xxix
Liverpool School of Pharmacy .. 38	Pierson, Morrell & Co., Ltd. (Salicylic Acid, etc.) .. ix	Swales, Thomas (Bottles) .. 56
London College of Pharmacy .. 38	Potter & Clarke, Ltd. (Skin Clear) .. 27	Taylor, Ernest, Ltd. (Tins) .. 57
Lysol, Ltd. (Marshall's Lysol) .. 14	Powell, F. W. (Chemicals, etc.) .. vi	Thames Chemical Co., Ltd. v
Ma Cherie, Ltd. (Toilet Preps.) .. 22	Pure Russian Liquid Paraffin Co., Ltd. xxviii	Thew, Hooker & Gilbey, Ltd. (Malted Milk) .. 44
McGlashan, D., Ltd. (Aldine) .. xiv	Quelch, Henry C., & Co. (New Agencies) .. 32-33	Tiffin's Dentabath, Ltd. 24
McKesson & Robbins, Inc. (Pills) .. xii	Reddgrave, Butler & Co. (Liquid Paraffin, etc.) .. xxix	Toinoco Paper Handkerchief Co., Ltd. 38
Macfarlan, J. F., & Co., Ltd. (Anæsthetics) .. vi	Reuter, J. R. (Eau de Cologne) .. 16	Tomlinson & Hayward, Ltd. (Weed Killer, etc.) .. 5
Mack-Ivor, J. Col. Supp.	Richards, F. H. Col. Supp.	Tomlinson, T., & Sons Col. Supp.
Macleans, Ltd. (Ovoil) .. 46	Roberts' Patent Filling Machine Co. 59	Trufood, Ltd. (Foods) .. 47
Macsons, Ltd. ("Kute" Wrist Support, etc.) .. 54	Robinson & Sons, Ltd. (Pill Boxes) .. 62	Tucker & Cross (Tamarinds) .. vii
Maltine Mfg. Co. 42	Robinson, B., & Co., Ltd. (Wines) .. 48	Tyrer, T., & Co., Ltd. (Chemicals) ix
Matthews & Wilson (Pills) .. xii	Roll Film Co. (Developing, etc.) .. 60	Van Der Hoeks (Bottles) .. 60
Maw, S., Son and Sons, Ltd. 11	Rose, J. L. (Pyrogallie Acid) .. xi	Vanities, Ltd. (Grease Paint) .. 12
Mawson, John W., & Co., Ltd. (Capsules) .. xi	Rubberfabrik, Holland .. 38	Venesta, Ltd. (Coll. Tubes) .. 62
May, Roberts & Co., Ltd. (Catalogue) xxxii	Rudduck & Co. Col. Supp.	Veno Drug Co., Ltd. (Dr. Cassells Tablets, etc.) .. xxiii
Meade-King, Robinson & Co., Ltd. (Petroleum, Jelly, etc.) .. xxix	Ruivoire et Cie (Perfumery) .. 22	Vickers, Ltd. (Containers) .. 58
Melin, C., & Co. (Vacuum Flasks, etc.) 56	Sadler & Moore (Cigarettes) .. 60	Viscose Development Co., Ltd. (Bottle Cappings) .. 59
Methylating Co., Ltd. (Methylated Spirit) .. xxvi	Saint Raphael Cie. (Tonic Wine) .. 48	Waide, Thos., & Sons, Ltd. (Printers, etc.) .. 63
Millar, A., & Co., Ltd. (Orange Wine) 61	Saltrates, Ltd. (Reudel Bath Saltrates) 10	Wallace Heaton, Ltd. (Photographic) 61
Mills, A. J., & Co., Ltd. (Honey) .. 42	Sambooy (Hair Tonic) .. 26	Ward & Goldstone, Ltd. (Hand Fan) 26
Milners Chemical Co. (Straw Hat Cleaner) .. 57	Samuelson, P., & Co. (Ess. Oils) .. Text	Warne, W., & Co., Ltd. 38
Morny Freres, Ltd. (Bath Salts Tahlets) Cover	Sandoz Chem. Co., Ltd. (Chemicals, etc.) .. viii	Warrington Chem. & Drug Co. vii
Morris, G. (Developing, etc.) .. 61	Scruton, Oscar & Co., (Nurse Harvey's Mixture) .. xxiv	Watts, J. (Safety Razor Blades) .. xxvi
Naef, M., & Cie (Synthetic Perfumes) .. Text	Scurr, C. A. (Optical Tuition) .. 38	West Electric Hair Curler Co. 23
National Cash Register Co., Ltd. .. 49-50	Serravallo, J. (Wines) .. 4	Westminster College of Pharmacy .. 38
National Drug & Chem. Union .. Col. Supp.	Shadeine Co. (Hair Dyes) .. 26	Whitaker & Co. (Hat Dyes, Household Dyes) .. xxxi
Old Strand Chem. & Trading Co., Ltd. (Chemicals) .. x	Shawyer, A. J., & Co. (Developing, etc.) .. 61	Wigglesworth, Ltd. 1
O-Pine-O Manif. Co., Ltd. (Toilet preps.) .. 26	Shirley, O. (Cellulose Wadding) .. 34	Williamson Bros. (Back Puffs, etc.) .. 28
Oppenheimer, Son & Co., Ltd. (Robo-leine) .. xxii	Shoppee, Albert C., Ltd. (Weighing Machines) .. 54	Wilson Ruhher Co. (Rubber Gloves) 34
Orridge & Co. Col. Supp.	Simond, S. D., & Co., Ltd. (Kelloggs Bran) .. 44	Winter, E., & Co., Ltd. (Gold and Silver Leaf) .. xxiv
Oury, Millar & Co. (Gelatines) .. 46	Simple Soother .. 55	Wood Bros. Glass Co., Ltd. (Bottles, etc.) .. 35
Owbridge, W. T., Ltd. (Lung Tonic) xix	Singleton & Cole, Ltd. (Tohacco) .. 60	Woodward, W. (1920), Ltd. (Gripe Water) .. xxv
Page, Chas., & Co., Ltd. (Chemicals) xi	Slack, A. B. Col. Supp.	Wright, Layman & Umney, Ltd. (Fruit Saline, etc.) .. Cover
Paine & Co., Ltd. (Malt Extract) 7	Smethurst & Meade, Ltd. (Exterpest) 53	Yonkdon, F. (Bottles) .. 56
	Smith & Co. (Fly Catcher) .. 60	Zeal, G. H., Ltd. (Clinical Thermometers) .. 39
	Smith, T. & H., Ltd. (Chemicals) .. iv	Zimmermann, C., & Co. (Chem.), Ltd. (Iodozan, etc.) .. xx
	Sorbo Ruhher-Sponge Products, Ltd. 12	
	Sparklets, Ltd. (Syphons and Bulbs) .. 3	
	Spatula Publishing Co. (Books) .. 53	

IMPORTANT NOTICE.**"HUMAGSOLAN"**

(REGISTERED TRADE MARK.)

DR. ZUNTZ'S WORLD FAMED HAIR-FOOD.**GREAT BRITISH CAMPAIGN NOW COMMENCES.**

WE have the pleasure to announce to members of the chemists' profession that this all-British Company having secured the all-British rights in the world-famous HUMAGSOLAN hair tonic nutrient which sells in tens of thousands of bottles in countries throughout the world, we are now launching

A VIGOROUS PRESS CAMPAIGN to establish HUMAGSOLAN as the one medically endorsed and scientifically approved hair grower. HUMAGSOLAN is, of course, on the P.A.T.A. list.

Watch the announcements in the national papers.

We shall create a public demand first and when this demand is established, the trade will know that they can order HUMAGSOLAN, for there will be customers waiting to be satisfied.

Our travellers will be calling on you later. Meanwhile we shall be pleased to furnish you with full particulars regarding HUMAGSOLAN, trade terms, etc., immediately on hearing from you.

HUMAGSOLAN LIMITED.

(Sales Promotion Dept.), FARADAY HOUSE, 10, CHARING CROSS ROAD, LONDON, W.C.2



**BABIES
LOVE IT!**

Cow & Gate House
GUILDFORD, SURREY

P. A. T. A.
LARGE SALE
PLUS
BIG PROFITS
25% to 33 1/3% PROFIT

Made by Sellers of

**Cow & Gate
Milk Food**

**EXTENSIVELY
ADVERTISED.
INCREASING
DEMAND.**

**WHERE
"John Bull" Malt Extract
IS MADE**



The Various Factories (Grouped)

PAINE & CO. LTD.
ST. NEOTS, HUNTS

**"JOHN BULL" MALT EXTRACT AND MALT EXTRACT AND COD LIVER OIL HOLD
THE HIGHEST REPUTATION FOR QUALITY.**



Rhodia

Brand

PHARMACEUTICAL AND
PHOTOGRAPHIC PRODUCTS

Manufactured by
LA SOCIÉTÉ CHIMIQUE DES USINES DU RHÔNE.
PARIS.

Acid Acetyl-salicyl (*Powder & Crystal*)
Acid Salicylic (*Powder & Crystal*)
Amidopyrazoline
Antipyrin Salicylate (*Equivalent to Salipyrin*)
Guaicol Carbonate
Guaicol Crystals
Guaicol Liquid
Hydroquinone
Methyl Salicylate

Paramidophenol Hydrochlor.
Phenacetin
Piperazine
Potassium Sulpho-guaicolate
Pyrazoline (*Phenazone*)
Resorcin (*Medicinal & Technical*)
Rhodol (*Equivalent to Metol*)

Salol
Sodium Hyposulphite (*Prismatic Crystal*)
Sodium Salicylate
Sodium Sulphite (*Anhydrous*)
Vanillin

ENQUIRIES SOLICITED FOR
SPOT OR FORWARD
DELIVERY

R. W. Greeff & Co. Ltd.

HEAD OFFICE:
THAMES HOUSE,
QUEEN ST. PLACE,
LONDON, EC4
T.N. CITY 6550 (8 LINES)
TEL. ADD: GREEFF, LONDON.



BRANCH OFFICE:
PALATINE BANK BUILDINGS:
10 NORFOLK ST.,
MANCHESTER.
T.N. CITY 5706-5707
TEL. ADD: GREEFF, MANCHESTER.

BRIDGE
BRAND

Pharmaceutical & Photographic Products

(WHOLESALE QUANTITIES ONLY)

Acetanilid
Acetic Acid
Acetyl Salicylic Acid
Acetone
Aethocaine
Amidol
Amidopyrin
Amidopyrin Salicylate
Barbitone
Benzoic Acid
Benzamine Hydrochlor
Benzamine Lactate
Benzo-Naphthol
Beta-Naphthol
Bismuth Salts
Bromides
Caffeine Pure
Calcium Lactate
Calomel
Chloral Hydrate
Cinchonine and Salts
Cinchonidine and Salts
Citric Acid
Cocaine and Salts
Corrosive Sublimate
Coumarin
Cream/Tartar
Creosote
Creosote Carbonate
Eucalyptus Oil
Formaldehyde

Gallic Acid
Glycerine
Glycerophosphates
Guaiacol and Salts
Heliotropine
Hexamine
Homatropin and Salts
Hydroquinone
Ichthyl Substitute
Kelen
Lactic Acid
Lanoline
Lecithin
Lemon Oil
Lithia Carbonate
Mercurials
Methylene Blue Medicinal
Methyl Salicylate
Methyl Sulphonat
Milk Sugar
Oxalic Acid
Pancreatin
Paraldehyde
Peppermint Oil
Pepsine
Peptone
Phenacetin
Phenazone
Phenolphthalein
Piperazine
Potassium Binoxolate

Potassium Chlorate
Potassium Permanganate
Potassium Sulphoguaiaacolate
Pyrogallie Acid
Quinidine and Salts
Quinine and Salts
Quinine Ethyl Carbonate
Quinoidine
Resorcine
Rhodol (Equivalent to Mctol)
Saccharin
Safrol
Salicylates
Salipyrin
Salol
Soda Benzoate
Soda Hyposulphite
Soda Sulphite Anhydrous
Sugar/Lcad
Tannic Acid Levis
Tannin Albuminate
Tartaric Acid
Terpine Hydrate
Terpineol
Theobromine and Salts
Thymol Crystals
Titanium White
Tropacocaine and Salts
Vanillin
Zinc Oxide
Zinc Phosphide

R. W. Greeff & Co. Ltd.

Thames House, Queen Street Place, London, E.C. 4

Telephone 6550 City
(8 LINES)

MANCHESTER BRANCH
PALATINE BANK BUILDINGS
10, NORFOLK STREET.
TELEPHONE CITY 5706/5707

NEW YORK AGENTS
R. W. GREEFF & CO. INC.
78, FRONT STREET.

QUALITY PREDOMINATES

WITH the help of our advertising you have to sell these products the first time only. The second and each successive sale is assured by the quality of the goods themselves. Never be out of stock of these quick-selling, rapidly moving lines. Recommend them with confidence and remember—*every sale means a pleased and satisfied customer.*

REUDEL BATH SALTRATES AND ALKIA SALTRATES

THE BATH PREPARATION PAR EXCELLENCE, cures Corns and all Foot Troubles permanently, stops Rheumatic or other aches and pains within ten minutes.

The acme of perfection in Salines. Unrivalled for Liver, Kidney, Stomach, Blood and Intestinal Disorders.

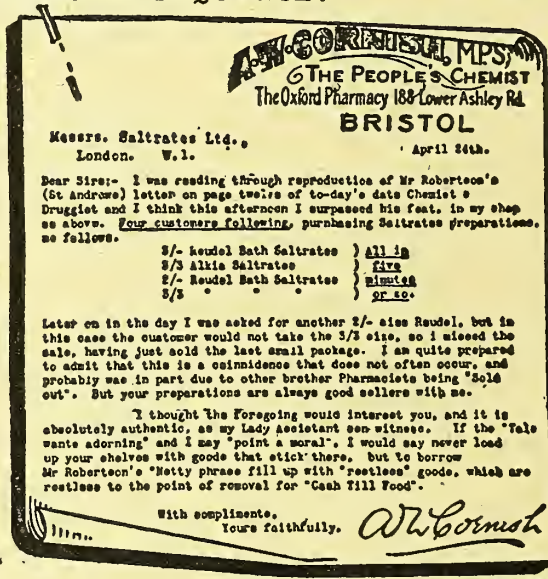
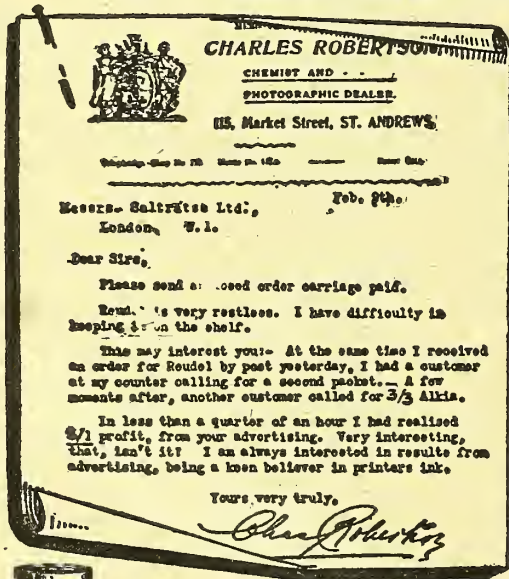
Sells at 2/- and 3/3 (P.A.T.A.)

Sells at 3/3 a large bottle (P.A.T.A.)

These products simply will not stay on the shelf.

SOME TRULY REMARKABLE TESTIMONY FROM CHEMISTS

READ THESE LETTERS IN SEQUENCE:



Note.—The above statements were sent to us without solicitation of any kind.

YOU can stock these goods on Guaranteed Sale Terms. Carriage Paid in United Kingdom on orders for 3 dozen and over, which may be assorted. Special Terms for Window and Counter Display.

SALTRATES LIMITED
Euston Buildings, LONDON, N.W.1.



Maw's Page



Two New Maw's Shavers

Two new products from the Shaving Brush factory of the House of Maw. Two patterns which show the handcraftsmanship for which the House of Maw is famous at its best.

These new shapes will appeal to the more practical minded, manly men among your customers—the sort of men who like a good handful, something “to get hold of” when they shave.



Curved Taper

And the appeal of these brushes is not merely sentimental. They have sound practical advantages. They stand firmly on the base. They are hygienic, having no crevices to hold dirt. They afford a good grip and are not easily dropped.

Each shape is supplied in three fillings, and each filling in three sizes. Add these brushes to your stocks to-day. They mean more business.



Straight Taper

Straight Taper and Curved Taper		Here are the prices :—		
		Small	Medium	Large
B Pure Badger, per dozen	.. ..	84/-	120/-	150/-
xBB 50% Badger	.. ..	54/-	72/-	84/-
Hog	.. ..	32/-	36/-	40/-

S. Maw, Son & Sons, Ltd.,
Aldersgate St., London,
and Barnet.

Telephone: **City 7**
Private **Eleven**
Branch **Cent**
Exchange **London**



Cables: **Code: A.B.C.**
Eleven **4th & 5th**
London **Edition**



**There's only
one day**

in the week—

You can sell Sorbo Sponges every day of the week except Sunday—and sell them at a big profit!

Practically everyone in your district is a potential customer for this popular favourite among sponges—**SORBO**—the sponge which soap improves.

The eager recommendations given by delighted users have "told the world" about Sorbo Sponges. You don't have to sell them—just show them in your window and they sell themselves.

There's a quick and generous profit—33½%—for you in every Sorbo Sponge. ORDER TO-DAY.

SorboSponge

THE MOST ABSORBENT RUBBER SPONGE

Retail Prices : No. 1, 1/-; No. 2, 1/9; No. 3, 2/6
No. 4, 3/9. Bath Sizes : No. 4R 5/-; No. 5, 7/6

Sorbo Rubber-Sponge Products, Ltd.

Sorbo Works, Woking, Surrey.

London Office " " " 24 Walbrook, E.C.4.

OUR SPONGES

AGAIN

**Considerably Reduced
in Price.**

Competition Defied.

WRITE FOR SAMPLES AND PRICES
OR CALL AND INSPECT OUR STOCK.

New Showrooms and Warehouses :
**25 FINSBURY ST., CHISWELL ST.,
LONDON, E.C.2.**

Telephone

CLERKENWELL 5428.

The

Sponge Fishing & Importing Co., Ltd.

(Société Anonyme pour la Pêche et l'Importation des Eponges)

Incorporated in Belgium.

Buying Branches at Sfax, Tripoli, Kalymnos-Symi, Hydra,
Batabona, Nassau and Florida.

Selling Branches at Brussels, Paris, Barcelona and Hamburg.

No connection whatever with any other Firm.

G. B. KENT & SONS, LTD.

Are known the World over as
the Largest Manufacturers of

**BEST
BRITISH
BRUSHES**

Please write for full Particulars to—

75 Farringdon Road, E.C.1.

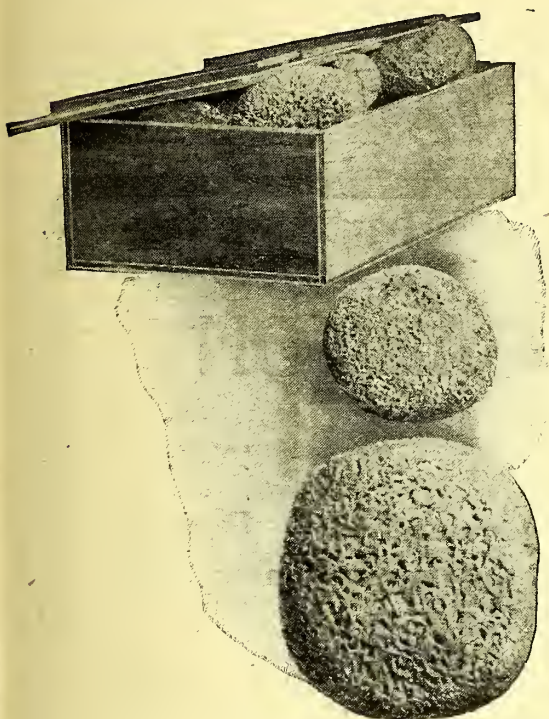


Obtainable from
your Wholesalers
or direct from

VANITIES LTD.

(Sole British Agents),

15a WHITCOMB STREET, LONDON, W.C.2



THERE is no branch of the trade which requires greater skill and experience, or a more intimate knowledge of the market — no enterprise which from a lack of these qualities more frequently culminates in disappointment than the buying of sponges.

In short, the successful assortment of a case of sponges calls for the Specialist.

We have him.

Moreover, if you will entrust us with your order, we are in the position to supply a limited number of Honeycomb Sponges to retail at from 1/- to 10/- each of a total value—and splendid value too—of £5 10s. per case at the special rate of £5, 2½% discount cases free.

If in doubt ask:—

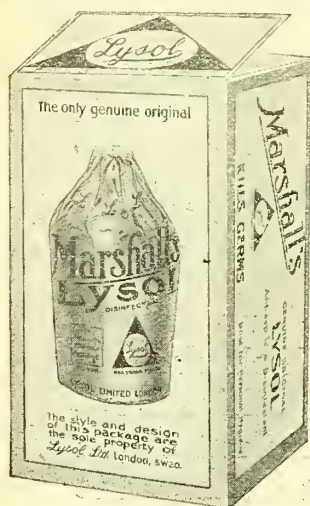
EVANS

EVANS SONS LESCHER & WEBB, LTD.

LIVERPOOL

New York

LONDON



THIS CARTON

Contains the original and only genuine Lysol. Packed in this neat fashion it adds to the attractiveness and distinctiveness of a popular article.

Our Press advertising is now resumed and will be read by millions of users and potential users of Lysol.

Do you recognise that Marshall's Lysol is a household necessity and that a window or counter display, linked with our press and general propaganda will lead to increased sales.

Always write "Marshall's" when ordering Lysol from your wholesaler and be sure you get the original. The profit ratio on Marshall's Lysol makes it a line worth handling.

.....
Marshall's
LYSOL
DISINFECTANT

Send Postcard for Terms.

LYSOL LTD., RAYNES PARK, S.W.20

Medicated and Table Wines

with a profit

Liebig's Beef & Malt Wine

Rich old port—prime beef—best malt extract. The perfect tonic food for convalescents and invalids

	1-3 doz.	6 doz.	1 gross
Reputed Pints ...	21/-	20/-	19/- per dozen
„ Quarts ...	36/-	34/-	33/- per dozen

UNIQUE DISPLAY CARD WITH ALL ORDERS

Liebig's Beef & Malt Wine

(WITH QUININE)

An exceedingly valuable bitter tonic

	1-3 doz.	6 doz.	1 gross
Reputed Pints ...	23/6	22/6	21/6 per dozen
„ Quarts ...	39/-	38/-	37/- per dozen

UNIQUE DISPLAY CARD WITH ALL ORDERS

Ayrton's Invalid Port Wine

Mature old port, carefully selected and specially recommended for the sick room

	1-3 doz.	6 doz.	1 gross
In bottles, 6 to gallon ...	58/-	57/-	56/- per dozen

José Serrano Port Wine

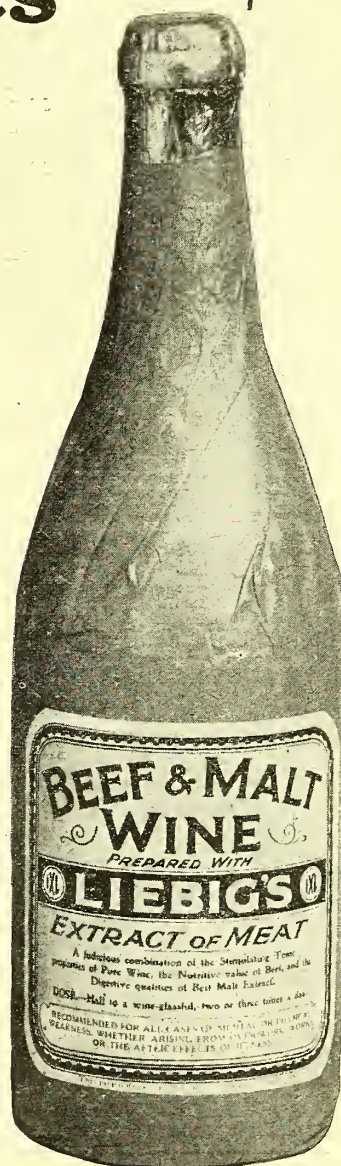
Fully matured and of excellent bouquet

	1-3 doz.	6 doz.	1 gross
In bottles, 6 to gallon ...	60/-	59/-	58/- per dozen

José Serrano Sherry

An Excellent Table Wine

	1-3 doz.	6 doz.	1 gross
In bottles, 6 to gallon ...	59/-	58/-	57/- per dozen



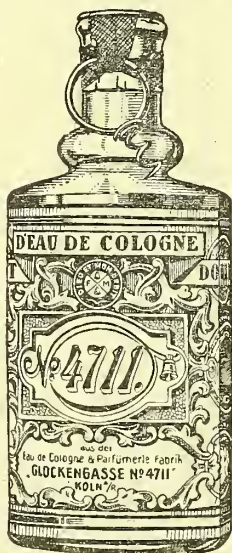
Ayrton, Saunders & Co. Ltd. Wine Importers, Liverpool

No. 4711. Eau de Cologne

"4711" gives satisfaction and brings repeats.

"4711" takes very little time to sell.

"4711" gives you adequate profit.



Write for particulars of our special
WINDOW DISPLAY TERMS

"4711" is largely advertised.

"4711" is artistically advertised

IT SELLS AT SIGHT.



P.A.T.A. PRICES.

Quarts	-	-	-	56/-	each
Pints	-	-	-	30/-	„
Half-pints	-	-	-	15/-	„
6-oz. Squares	-	-	-	14/-	„
4-oz. Original	-	-	-	8/9	„
2-oz. „	-	-	-	4/9	„
1-oz. Watch Shape	-	-	-	2/6	„



Sole Importer :—

R. J. REUTER, 69 Carter Lane, LONDON, E.C.4



"A Dream
of Ancient
Mystery."

NUBIAN POPPY

"DISTOL"

A Floral Oriental Concentrate which produces a fragrant, full, and vigorous bouquet, such as will command the respect of discerning customers, while yielding the Pharmacist that generous profit to which users of "Distol" Ottos are accustomed.

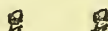
Samples of perfumes made from Nubian Poppy and any other five of our thirty-three "Distols" with particulars of costs will be sent to any Pharmacist on request.

THOMAS KERFOOT & CO., LTD.
BARDSLEY VALE, LANCASHIRE,
& Bardsley House, London, England
ESTABLISHED 1767

COPYRIGHT

A Good Resolution

*During 1923 only to
serve the best procurable*



The Best Bath Tablets are
EUCRYL BATH TABLETS

7½d. per box of 4.

The only Tablets for
the Handbasin are
EUCRYL AQUALETES

9d. per box of 48.

No Free Caustics. Immediately Soluble.

Delicately Perfumed Tablets of
FROZEN FRAGRANCE

Write for Generous Introductory Terms to

EUCRYL, LTD.
Shirley = = = Southampton

ASPIRIN IS ADVANCING

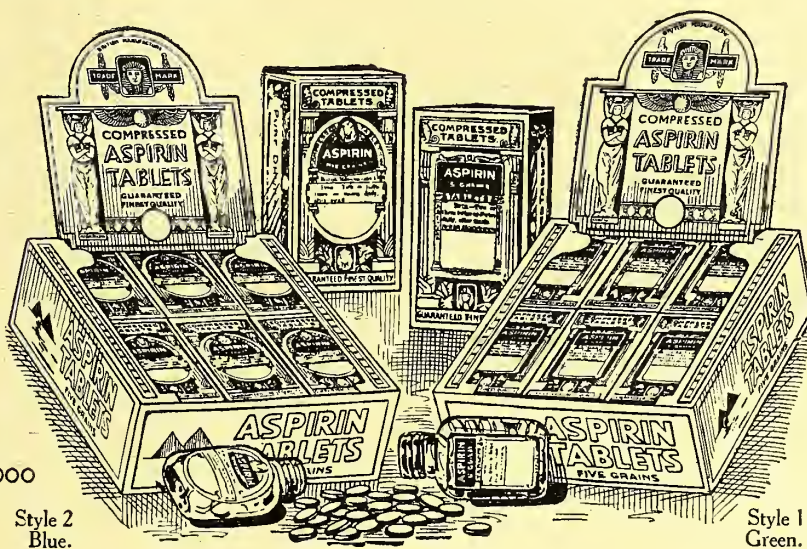
WHILST we shall be loathe to increase the price of our Aspirin Tablets, we cannot guarantee for how long our present figures will hold as we shall be unable to renew our contracts at such advantageous rates. We earnestly advise our customers to anticipate their requirements and **BUY NOW.**

To-day's
prices are :

25's
3/9 doz.

100's
9/- doz.

per **4/3** 1,000



ALL ORDERS FOR £2 CARRIAGE PAID IN THE U.K.

The three essentials to a good Aspirin Tablet are absolute purity, accuracy of dosage, speedy disintegration. We guarantee all three and add one of the smartest packs on the market. Each bottle neatly labelled and cartoned ready to be handed to the customer, no wrappings or packings necessary. New attractive display outers as illustrated.

ARTHUR H. COX & CO. LTD
Manufacturing Chemists
BRIGHTON ENGLAND



Established 1839.

"Specialty" Emulsions



*There's a ready and
extensive Sale for these
elegant preparations*

Being one of the largest importers of Medicinal Oils, we can supply highest quality Emulsions at competitive prices. Special reservable labels are available. Send a postcard to-day for samples and prices.

"SPECIALTY"

Petroleum Emulsion

Containing the finest medicinal petroleum, agreeably flavoured. Supplied with or without hypophosphites in 33% and 50% strengths. Packed in special wide-mouth, oval-shape bottles in all sizes, with white viscose caps.

"SPECIALTY"

Pectoral Petroleum Compound.

This preparation represents a decided advance in the treatment of obstinate coughs, etc., chiefly owing to its petroleum basis. It is therapeutically active without any risk of stomaching irritation, and represents the last word in Pharmaceutical skill to obtain a perfect product. Packed only in 4 oz. and 8 oz., special wide-mouth, oval-shape bottles, with white viscose caps.

"SPECIALTY"

Cod-liver Oil Emulsion

Carefully prepared with the finest quality Norwegian Cod-liver Oil, with or without Hypophosphites, in 25% and 50% strengths. Packed in special wide-mouth, oval-shape bottles in all sizes with white viscose caps.

Above also supplied in Bulk.

Specialty Dept.
Anglo-American Oil Co. Ltd.
Albert Street, Camden Town, London, N.W.1.

Telegrams :
"Nufirjol, Norwest, London."

Telephones :
Hampstead 4046-4:47.



EVAN WILLIAMS ORIGINAL Henna Shampoo

*One of our Customers
says :*

**"We are always pleased
to handle Evan Williams'
Specialities for, amongst
other reasons—**

**"We never get any
complaints.**

**"They are quick
sellers.**

**"You leave the retailer
a good margin of profit."**

The EVAN WILLIAMS CO., LTD.,
18 & 18a, Ogle St., Foley St., LONDON, W.1.

A Name that Merit has made Famous

"HARLENE- HAIR-DRILL" TOILET SPECIALITIES

THE extensive and intensive advertising campaign constantly running in connection with "Harlene" continues and will continue to draw immense response from all over the country. Thousands of Free Trial Gift Parcels are dispatched to new applicants every day, thus increasing the already colossal retail business.

Do you stock the following "Quick Sellers"?

- | | |
|--------------------------|--------------------------|
| "Harlene" for the Hair | "Astine" Vanishing Cream |
| "Uzon" Brilliantine | "Astine" Tooth Cream |
| "Cremex" Shampoo Powders | "Astine" Shaving Stick |
| "Astol" for Grey Hair | "Astine" Nail Cream |

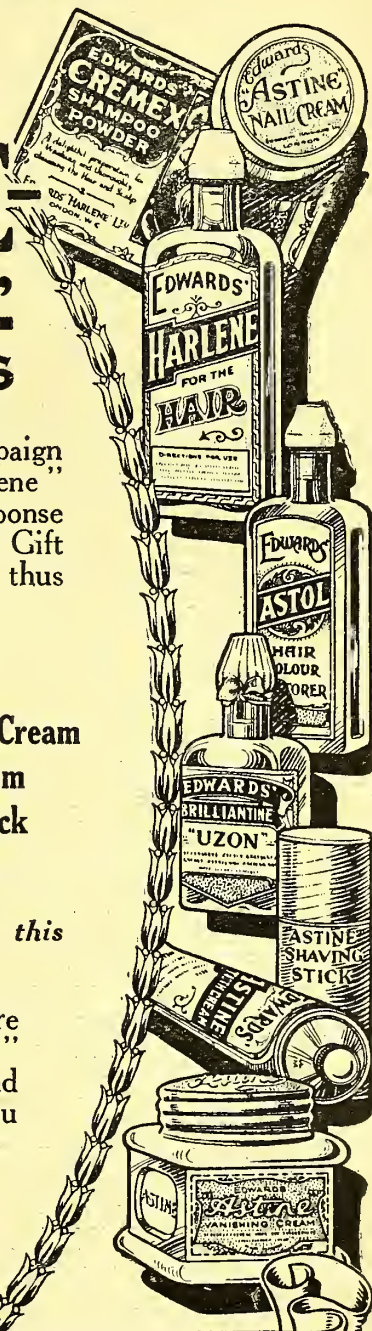
*No Chemist or Store can afford to be without this
Unique Line of Toilet Preparations.*

Every day "Harlene-Hair-Drill" becomes more popular and every day the demand for "Harlene" preparations becomes greater. Don't be behind the times and turn away good business because you have not got sufficient stocks.

**PLACE YOUR
ORDER TO-DAY.**

For Full Particulars, Terms, etc., write to :—

EDWARDS' HARLENE LTD., 20, 22, 24, 26, LAMBS CONDUIT STREET - LONDON, W.C.1.



Ma Chérie

(REGD.)

Toilet Preparations and Perfumery.

FACE POWDERS 4 shades—White, Rachel, Chair (Natural) and Rose. Three sizes
4/-, 6/6, 10/- doz.

SOLID POWDERS In 10 shades—White, Rachel, Naturelle, Rose, Rouge, Incarnat, Rouge Foncé, Rouge Brunette I, Rouge Brunette II, and Egyptienne.
In card boxes, with puff ... 4/- doz.
In gilt metal boxes, with puff 8/- „

VANISHING CREAM Specially prepared that it may be used as a Day or Night Cream—a real Skin Food in All China Pot, each pot in carton. 10/- doz.

SOAP LEAVES 40 leaves in a book. Sell at sight to all golfers, motorists, doctors, etc. Invaluable for washing in emergency as these can be carried in pocket book. Antiseptic and delightfully perfumed. 30/- gross.

SHAMPOO POWDERS Each shampoo contains sufficient for 3 wet shampoos. Unbeatable for quality and price. 12/- gross.

TOOTH PASTE Specially prepared and sweetened with Saccharin to ensure that no anti-dental constituent is contained in its manufacture. 8/- doz.

DIPLOMAT Regd.
SHAVING STICK in nickel case, 8/- doz. **RELOADS** for above in cardboard outer, 4/3 doz. (reduced wholesale price).

MA CHÉRIE BATH SOAP 6 in box, assorted perfumes and each tablet packed separately. 5/6 doz. (reduced wholesale price).

MA CHÉRIE BATH SOAP (New Shape) Made absolutely flat. Will not slide about, each tablet cellophane wrapped. 4 in box assorted perfumes. 6/6 doz. (reduced wholesale price).

NOTE.—In cases where we have reduced wholesale prices P.A.T.A. prices remain as heretofore. Cash discounts and "all goods carriage paid" is not affected by reductions.

MA CHÉRIE BATH SALTS 60/- doz.
40 oz. in glass stoppered jar.

We are Exhibiting at the

DAILY EXPRESS WOMAN'S EXHIBITION

OLYMPIA, LONDON,

APRIL 12th to MAY 5th, 1923.

STAND 41.

ROW B.

MA CHÉRIE, Ltd.

London House : 35 Crutched Friars, E.C.3

Only need showing
and will
Sell Themselves



Finest quality Concentrated Perfumes made from natural flower oils

PARMA VIOLET
LILY OF THE VALLEY
WALLFLOWER

WHITE LILAC
WHITE ROSE &
SWEET PEA

Free from spirit. Supplied in High-Class Rod-Stoppered Hexagon Bottles.

RUVOIRE ET CIE
154 Church Lane, Harpurhey, MANCHESTER.

JAKSON'S PEPPERMINT, LAVENDER & CAMOMILE OILS are the BEST.

Produced and Prepared by
THE LARGEST GROWERS & DISTILLERS IN ENGLAND.

Distillery :
J. JAKSON & CO. (Mitcham Rd., 1921), LTD.
Mitcham Road, WEST CROYDON.

AGENTS for the U.K. :
F. NEWBERY & SONS, LTD.
27 & 28 Charterhouse Square, London, E.C.1



Standard
Card of 4
Retails at 1/-

Participate in a Great Success!

THE West Electric Hair Curler is an unprecedented success. Merchants all over the country are attracting a growing clientele by stocking and displaying this fast-selling line. Every woman requires them and knows she does as soon as she sees them.

The remarkable popularity and rapidly increasing demand for West Electric Curlers are due to the fact that *they do what is claimed* for them. They produce a soft rippling wave in a few minutes.

And this result is obtained simply and safely without the slightest risk of damaging the hair, and without the use of heat or electricity. The beautifully waved coiffures of thousands of women are a daily testimonial to the delightful effect the West Electric Curler gives. It is unquestionably the premier invention of its kind. As inexpensive as it is scientifically perfect it has an instant appeal to every class of your customers.

Enthusiastic recommendation is the outcome of every sale. No woman will tolerate straight hair once she learns how easily a becoming "wave" can be obtained. Our advertising is thoughtfully conceived, country-wide, thorough, consistent, and continuous. Every week sales of West Electric Curlers go up by leaps and bounds. For one woman who is using West Electric Curlers now there are ten others ready to buy on sight, and a hundred more already interested.

This is your opportunity. Put West Electric Hair Curlers on your counters and in your windows—You will attract new customers to your establishment, convince your old customers of the wide-awake scope of your service—and gain quick substantial profits.

Most wholesalers now carry the West Electric Curler in stock for the accommodation and convenience of the trade. If not easily obtainable, write us for terms and trade brochure mentioning, if you wish, the name of the wholesaler from whom you require supplies.

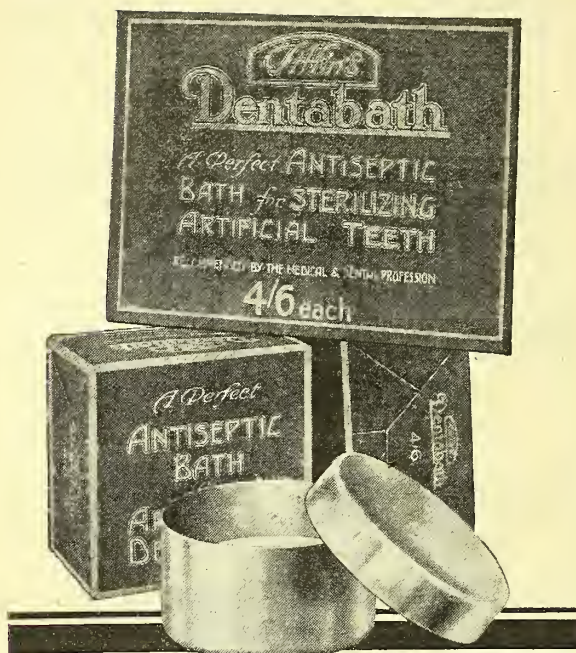
The name West Electric on each card is a protection against imitations that have not been scientifically evolved, tempered and electrified, and have not the patented double-lock disc clasp. A reasonable supply of display material is at your disposal gratis on request.

Don't miss the opportunity afforded by this important quick-selling line. Get in touch with us to-day.

WEST ELECTRIC HAIR CURLER CO. (Dept. 64), 8 Kirby Street, Hatton Gdn., London, E.C.1

WEST ELECTRIC

Hair Curlers



Tiffin's Dentabath

Patent No. 182294.—30/5/21.

**is New and Novel—yet more
than Novel—it is a Necessity!
Therefore it will SELL**

The DENTABATH is an antiseptic Bath for artificial teeth. It is in burnished aluminium, and contains a specially prepared tablet, so slowly soluble that its sterilizing qualities will remain operative over 12 months. The Denture is placed in the Bath and covered with cold water. That's all! The solution effectively sterilizes the teeth and mount.

Every customer who has artificial teeth is a sure buyer of the DENTABATH, for the idea grips. The handsome finish and the attractive packing sells the DENTABATH at sight.

**Carries a good
Margin. Retail at 4/6**

Dozen lots, 39/- carriage forward

2-dozen lots, 39/- doz. carriage paid

Neatly cartoned. Showcards & window slips with each order

Single sample, 3/3 plus 4d. postage

On P.A.T.A. list. Must not be sold under scheduled price.

J The DENTABATH is being advertised extensively in national papers and magazines. You will be asked for it. Be prepared for the demand by having a supply in hand.

Order a Sample Dozen Today!

LONDON WHOLESALE DISTRIBUTORS:

Warrick Bros., 6 Nile St., City Rd., N.1

Patentees and Makers:

TIFFIN'S DENTABATH, LTD.

J.B.C. 37c King Street, South Shields,

D4

DEARBORN (1923) LTD.

**37 Gray's Inn Road,
LONDON, W.C.1.**

Toilet Specialties.

	Price per doz.	Selling Price to Retailer P.A.T.A.
PILENTA SOAP ...	10/-	1/-
A complexion soap.		
PROLACTUM ...	10/-	1/-
For the lips.		
PARSIDIUM JELLY ...	10/-	1/-
For wrinkles.		
ALLACITE OF ORANGE		
BLOSSOM ...	22/6	2/6
A dressing cream.		
BORANIUM ...	22/6	2/6
A hair tonic.		
CLEMINITE ...	22/6	2/6
For a face lotion.		
COLLIANDUM ..	22/6	2/6
For a face tint.		
PERGOL ...	22/6	2/6
A deodorant.		
TEKKO PASTE ...	22/6	2/6
Camphor cream.		
STALLAX ...	22/6	2/6
For a shampoo.		
JETTALINE ...	31/6	3/6
For clearing the skin.		
PHEMINOL ...	36/-	4/-
A depilatory.		
MENNALINE ...	36/-	4/-
For the eyelashes.		
MERCOLIZED WAX ...	31/6	3/6
A face cream.		
STYMOL ...	36/-	4/-
For oily complexions and blackheads.		
SILMERINE ...	22/6	2/6
Hair-curling fluid.		
BARSYDE ...	22/6	2/6
Dandruff eradicator.		
TAMMALITE ...	22/6	2/6
For grey and faded hair.		
LIQUID PERGOL ...	31/6	3/6
To check excessive perspiration locally.		
BICROLIUM ...	22/6	2/6
For whitening the hands.		
HARAPOSA ...	22/6	2/6
Nut oil shampoo.		
COCONOIDS ...	31/6	3/6
For figure development.		

The Products of

Messrs. PARKER, BELMONT & CO.

CLYNOL BERRIES	{ 36/-	4/-
For obesity.		
SOFT PALERIUM...	45/-	5/-
For wrinkles.		
LIQUID NAIL POLISH ...	10/-	1/-
Brilliant and lasting.		

Stocked by ALL Wholesale Houses.

COLONIAL DEPOTS AND AGENCIES.

Australia: ALL WHOLESALE, & DEARBORN (Australia), Ltd., Grace House Clarence Street, Sydney.
South Africa: LENNON Ltd, Cape Town, etc.
India: FRAMJEE & SON, Bombay
 SMITH, STANISTREET & CO., Calcutta.
New Zealand: SHARLAND & CO., Auckland & Wellington.
South America: DEARBORN (South America), Ltd., Calla Salta 264, Buenos Aires
Straits Settlements & Federated Malay States: MEDICAL HALL, Ltd., Singapore.

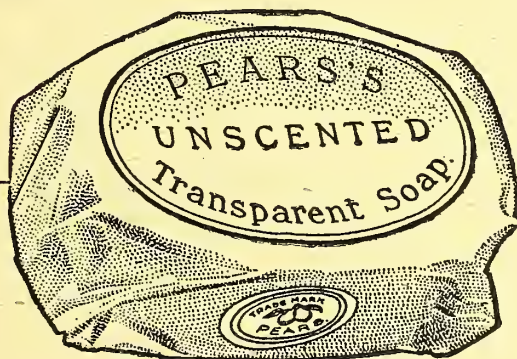
The most wonderful seller in the world.

There is no commodity in the world that, in its own line, can claim such a distinguished position as Pears' Transparent Soap. Pears is so universally admitted to be the best toilet soap that even those who do not use it excuse their choice with a defiant air; they know they are being foolish, and, sooner or later, they *do* use Pears — like sensible citizens. Pears' Transparent Soap on your counter and in your window not only sells so readily that its own overhead expenses are reduced to vanishing point, but it also attracts the casual public to your establishment and increases your sale of other goods that have no connection with soap at all.

Let

Pears

increase your business



A. & F. PEARS, Ltd.,
71-75, New Oxford St.,
LONDON, W.C. 1.

IT PAYS TO STOCK THIS STROP

Every Safety user wants one.
Over 25,000 already sold.

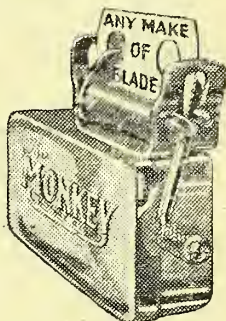
Extensively advertised in the Daily Papers. A display in your window will not fail to attract.

The Monkey Strop

is really efficient and reliable and requires no adjusting.

33 $\frac{1}{3}$ % PROFIT

Samples at dozen rate. Special offer 6 strops packed with strutted Show Stand 21/- c.w.o.



"De Luxe" Model, in Nickle-Plated Case.

Retails at 5/6. Wholesale 45/- doz.

Showcards etc. Supplied. Orders through Wholesalers

DOUGLAS KIRBY & CO.

(Dept. H) Eastgate House, Gloucester.

"SAMBOY" HAIR TONIC

is made from the purest materials which combined, provide a genuine tonic, unrivalled in its beneficial effect upon the hair and scalp. It is called "a wonderful grower," and may be used by young and old without harm; is especially good in relieving irritation, and cleansing the scalp. It preserves the colour of the hair.

To be obtained from maker on sale or return terms, but is a ready seller. Everyone likes "Samboy."

"SAMBOY," 22 STRAND, RYDE, I.W.

PERFUMERS—SAVE LABOUR!

Headquarters for:

Vanishing Creams, Shampoo Powders, etc., in bulk or packed. Samples and prices on request. Makers of the "O-Pine-O" Toilet and Household Soaps. The special feature of these soaps is that they contain all the natural Glycerine.

A trial will convince as to the very high quality of these goods.
"O-PINE-O" MFG. CO., LTD., Montague Rd., Horsey, London, N.8.

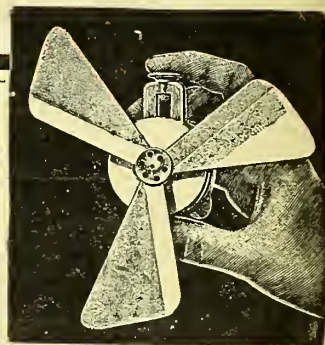
Talcum Powder

OF ALL GRADES
FOR ALL PURPOSES

SELLS AT SIGHT!

HAND FAN

PATENT.
"QUEEN MARY MODEL DE LUXE."
Most Saleable and Profitable Summer Line.



BEST BRITISH MAKE.

GIVES A REFRESHING AND STIMULATING BREEZE IN THE HOTTEST WEATHER.

Indispensable in the Ballroom, Cinema, Theatre, Sickroom, etc.

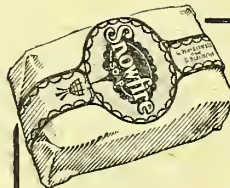
Entirely self-contained, requires no Electricity, no Winding up, simply PRESS THE BUTTON and the Blades revolve at a high speed, creating a powerful Breeze. Beautifully finished in imitation Ivory and Tortoiseshell and fitted with a dainty Mirror. Takes up very little space and weighs no more than a watch. Diameter of Blades 5 1/2 in., which collapse to half size when not in use. Attractively packed in Single Boxes.

Net Trade Price 28/- dozen, post free.

Fixed Retail Price 3/6 each.

Special quotation for quantities.

Ward & Goldstone
PENDLETON MANCHESTER LTD.



A Soap with the "SNOWFIRE" Prestige

"Snowfire" Soap will draw custom to your shop. Free from alkali and containing the special emollient properties which have made "Snowfire" famous, it can be safely recommended for baby's delicate skin or as a toilet soap for the promotion of skin health for either sex. A soothing soap for tender skins that sells on its merits.

Snowfire SOAP

Write to-day for terms.

F. W. HAMPSHIRE & CO., Ltd.,

Riverside Works, Derby.

is well advertised, offers liberal profits and will prove a custom-drawing addition to your stocks.



SHADEINE FOR COLOURING GREY HAIR

This popular article is largely advertised and stocked by all Wholesale Houses. Trial Size 6d., per post 10d., 1/4 size, per post 1/7, 2/6 size, per post 2/11, 3/9 size, per post 4/6, 6d. size, 6/- doz.; 1/4 size 12/- doz.; 2/6 size, 24/- doz.; 3/9 size, 36/- doz.

THE SHADEINE CO., 58 WESTBOURNE GROVE, LONDON, W.

FOR SAMPLES AND PRICES APPLY TO:

W. Harrison & Co., Ltd.

16 MINCING LANE, LONDON, E.C. 3;

And at

14 MARKET PLACE, MANCHESTER.

Dr. BUCHANAN'S SKIN CLEAR

A positive cure for all skin diseases—Eczema, Barber's Itch, Bad Legs, Pimples, Ringworm, Chilblains, &c.

1/3 tins (P.A.T.A.) Skin Clear 10/- doz.
9d. tabs. (P.A.T.A.) Skin Clear Soap 6/- „
(In cartons)

An attractive window display will be sent on request.



ADVERTISING.

An extensive advertising campaign begins this month and spaces have been booked in many of the leading papers in the country:—

Dr. BUCHANAN'S
Skin-Clear

A Positive Cure for Eczema, Pimples, Sore Places, Chilblains and all Skin Diseases. Soothes, Heals, Stops Pain, restoring.

Price 1/3 from all Medicine Vendors.

CLEARs THE SKIN

Clears the Skin

Dr. BUCHANAN'S
Skin-Clear

INVALUABLE for Cuts, Bruises, Burns, Rashes, Itching and all Skin Affections.

Price 1/3 from all Medicine Vendors.

SPECIMEN ADVERTISEMENTS.



SUPPLIES MAY BE OBTAINED THROUGH YOUR
USUAL WHOLESALE HOUSE OR DIRECT FROM US

POTTER & CLARKE, Ltd.

Wholesale and Export Druggists,

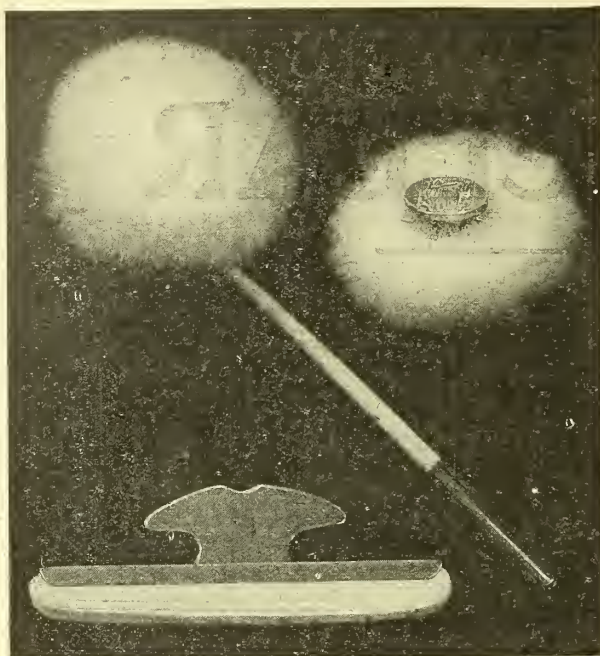
60, 62, 64, Artillery Lane, London, E.1.

and at 24 Luna Street, Great Ancoats Street, Manchester.

Established 1813.



TRADE MARK.



Something new to feature in **POWDER PUFFS!**

HANDLE PUFFS (2 color Erinoid). □ □

TUTANKHAMEN PUFFS, mounted with exquisite Egyptian style handles (hand carved). □ □

New Patent 'STRIPCLENE' NAIL POLISHER. (No awkward wire rings.) Fitted with two spare leathers. □ □

Wholesale and Export Enquiries Invited.

WILLIAMSON BROS., 126 Southwark Street, LONDON, S.E.1

Phone - - - - HOP 3419.

Parfumerie

Bourjois

Paris

Poudre de Riz de Java

No. 45
10/- per doz.

P.A.T.A.
1/3 per box.



No. 495
7/- per doz.

P.A.T.A.
10½d. per box.

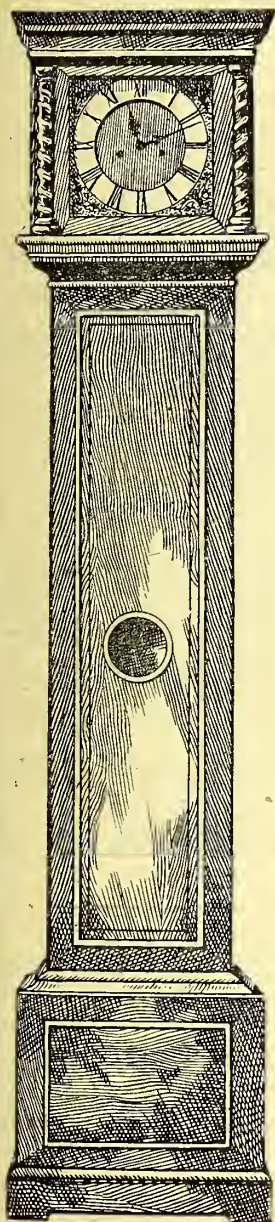
No. 45.

Made in the following tints: RACHEL, NATURELLE, BLANCHE, ROSE and BRUNETTE.

A. Bourjois & Cie, Ltd., 66 Carter Lane, London, E.C.4.

Also Manufacturers of the celebrated "ASHES OF ROSES," No. 2, 15/- per doz.; P.A.T.A. 1/9 per box.

Antiques



The Joy of Antiques is not in their age but in their CRAFTSMANSHIP.

In the 18th and early 19th centuries an employer and his workers were proud of THEIR craft, not ashamed of production, as many are to-day, when Limited Companies in the rush for money have caused Factories to become an eyesore to the countryside.

An exception to this is the ADDIS WORKS, which is still an individual business, inherited direct from father to son since 1780—the age of craftsmanship.

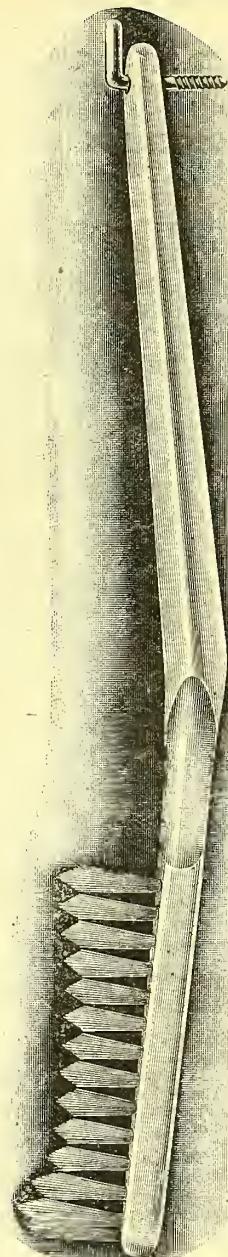
Production for the money alone will never have the dignity of appearance of productions with the heart of the craftsman in them.

This is the secret of the appearance and quality of

**“ADDIS
PROPHYLACTIC”**

Reg. No. 593367.

Brushes. A Factory whose workers' ambition is to maintain the craftsmanship held by their forbears.



Reg. No. 593367.

ROBT. ADDIS & SON

Brush Works, Hertford.

Telegraphic Address :
"Cresswell, Westcent, London."

WORLD'S HEADQUARTERS FOR

Telephone :
No. 1432 Holborn.

SPONGES

INTERNATIONAL SPONGE IMPORTERS, LIMITED.

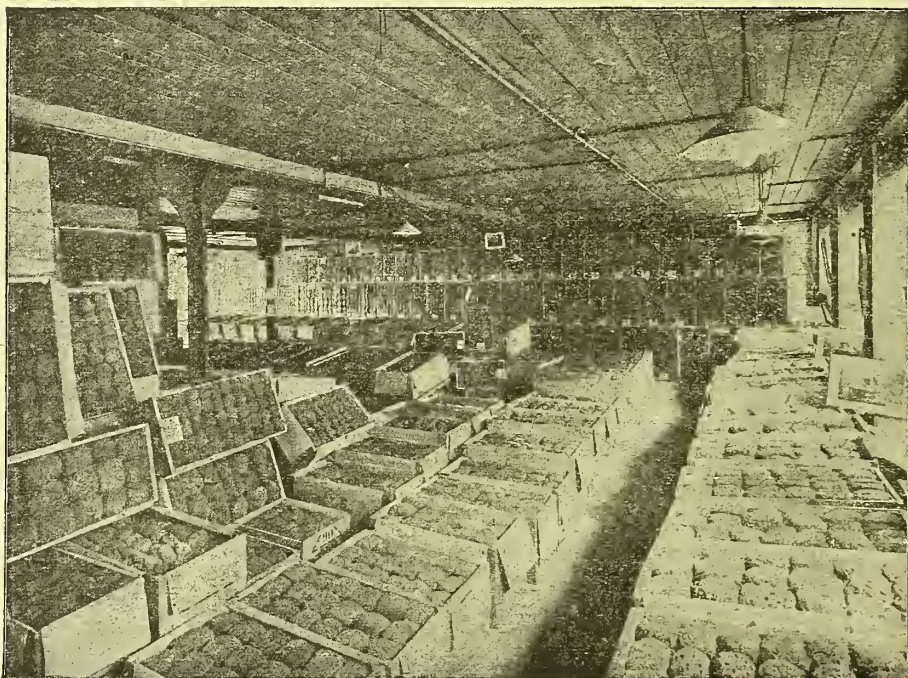
CRESSWELL BROTHERS BRANCH

Sponge Importers, Exporters and Merchants, and Chamois Leather Dressers,

18 & 19 RED LION SQUARE, New Warehouses and Steam Bleacheries, LONDON, W.C.
45½ EAGLE STREET,

THE LARGEST DIRECT IMPORTERS WITH THE MOST
EXTENSIVE SPONGE WARHOUSES IN THE WORLD.

WE
OFFER
THE
BEST
VALUE
AT
THE
PRICES
GIVEN.



BUYERS
ARE
INVITED
TO
CALL
AND
CON-
VINCE
THEM-
SELVES
OF THIS
FACT.

View of one of the Floors (3,000 sq. ft.), where we have on show the Largest Stocks of Original Cases of honeycomb and Turkey Sponges held by any House in the Trade.

The following abridged List will serve as a guide to Buyers when writing.

UNBLEACHED MEDITERRANEAN SPONGES in Original Cases.

HONEYCOMB.

Extra Choice. The Pick of all the Fisheries. Finest Texture and Shape.		
Pieces in Case.		Average Price per Piece.
300 Toilet at ...	...	9d.
250 " " " " " "	...	1/-
200 " " " " " "	...	1/6
160 " " " " " "	...	2/-
140 " " " " " "	...	2/6
120 " " " " " "	...	3/-
100 " " " " " "	...	3/6
90 Medium Bath ...	...	4/6
80 " " " " " "	...	5/6
72 " " " " " "	...	6/6
60 " " " " " "	...	7/6
45 Large " " " "	...	8/6
30 " " " " " "	...	10/6

HONEYCOMB.

Toilet & Bath.
Good 2nd Quality.

Pieces in Case.		Average Price per Piece.
270 at ...	...	6d.
180 " " " " " "	...	9d.
170 " " " " " "	...	1/-
160 " " " " " "	...	1/6
140 " " " " " "	...	2/-
120 " " " " " "	...	2/6
110 " " " " " "	...	3/-
90 " " " " " "	...	3/6
80 " " " " " "	...	4/-
75 " " " " " "	...	4/6
70 " " " " " "	...	5/-
65 " " " " " "	...	5/6
60 " " " " " "	...	6/6

FINE TURKEY SOLIDS.

SELECTED SHAPES.

1st Quality		
Pieces in Case.		Average Price per Piece.
Nursery 200 at ...	...	1/-
Toilet 150 " " " "	...	1/6
" 100 " " " "	...	1/9
" 100 " " " "	...	2/-
" 80 " " " "	...	2/6
Bath 50 " " " "	...	3/-
" 36 " " " "	...	4/-
" 24 " " " "	...	5/-

IMPORTANT NOTICE.

LOOSE GOODS DEPARTMENT.

THE CONTENTS OF THE ABOVE CASES WILL BE PRESS-PACKED AND SENT POST FREE TO COLONIAL AND FOREIGN BUYERS WITHIN THE RADIUS OF PARCELS POST SPONGES IN SMALL PACKAGES. Fine Turkey. Fine Egyptian and Honeycomb. In 1st, 2nd and 3rd Qualities Bleached or unbleached (state which in ordering). On strings of 1 dozen pieces, or loose in bags. At per doz. : 2s., 3s., 4s., 6s., 9s., 12s., 15s., 18s., 24s., 30s., 36s., 42s., 48s., 54s., 60s., 66s., 72s. Bleached Cuban. At per String or Dozen. Wool, Grass, Yellow and Fine. 1s., 2s., 3s., 4s., 6s., 9s., 12s., 15s., 18s., 24s.

PROGRESSION

Rarely in the history of this firm has a line progressed in so short a time as has the Elfrida Series. During the past few months the sales have considerably more than doubled, and they show a consistent tendency to grow.

Now, just why is this? First and foremost the profits are good—they make it really worth while to pay attention to the series. Then the line offers a combination of moderate selling prices together with a high standard of quality—this accounts for the public preference. And finally, the Elfrida Series does credit to your business; by the elegance of their packs and by the distinction and selling value of their show matter.

Display Elfrida generously—the window show occasionally, the show cards regularly. It all means increased trade for you.

ELFRIDA SKIN CREAM

120/- per gross.
Under 1 gross 10/3 per dozen.
P.A.T.A. 1/6

ELFRIDA HAIR CREAM

111/- per gross.
Under 1 gross 9/6 per dozen.
P.A.T.A. 1/6.

ELFRIDA

BRILLIANTINE

105/- per gross.
Under 1 gross 9/- per dozen.
P.A.T.A. 1/3

ELFRIDA

TOILET PARAFFIN

99/- per gross.
Under 1 gross 8/6 per dozen.
P.A.T.A. 1/6.

ELFRIDA HAIR TONIC

99/- per gross.
Under 1 gross 8/6 per dozen.
P.A.T.A. 1/3

ELFRIDA COCOANUT OIL SHAMPOO

90/- per gross.
Under 1 gross 7/9 per dozen.
P.A.T.A. 1/3

ELFRIDA BAY RUM

99/- per gross.
Under 1 gross 8/6 per doz.
P.A.T.A. 1/3.

ELFRIDA BAY RUM AND CANTHARIDES

99/- per gross.
Under 1 gross 8/6 per dozen.
P.A.T.A. 1/3.

■ W. B. CARTWRIGHT, LTD. ■

RAWDON, NEAR LEEDS.

The Series that goes one better—always

WE HAVE MUCH PLEASURE IN INFORMING THE TRADE
AGENCIES FOR GREAT BR

Boncilla

BEAUTY
PREPARATIONS

"Boncilla" Beautifier in Tubes	-	retail price	4/6	each	36/-
"Boncilla" " in Jars	-	" "	4/6	"	36/-
"Boncilla" " in Jars	-	" "	6/9	"	54/-
"Boncilla" Vanishing Cream in Jars	"	" "	3/6	"	28/-
"Boncilla" Cold Cream in Jars	-	" "	3/6	"	28/-
"Boncilla" Face Powder	-	" "	3/6	"	28/-
"Boncilla" Package-O-Beauty	-	" "	2/6	"	20/-

(Trial package of Beautifier, Cold Cream, Vanishing Cream and Powder)

PROPRIETORS:

BONCILLA LABORATORIES, INDIANAPOLIS, U

ELCAYA CRÈME

ELCAYA VANISHING CREAM	-	retail	2/6	20/-
ELCAYA WITCH HAZEL CREAM		"	2/6	20/-
ELCAYA COLD CREAM	-	"	2/6	20/-
ELCAYA ROUGE	-	"	2/6	20/-
ELCAYA FACE POWDER	-	"	2/6	20/-

FULL DETAILS OF THE ADVERTISING CAMPAIGNS FOR

HENRY C. QUELCH & CO

HAVE BEEN OFFERED AND ACCEPTED THE FOLLOWING
THE IRISH FREE STATE

PACKERS' TAR SOAP

Retail Price 1/3 10/6 Per Dozen.

Each tablet is now supplied in a decorated Aluminium Color Metal Case.

PACKERS' LIQUID TAR SOAP

PACKERS' CUTANEOUS CHARM

LIFE SAVERS

The Candy Mint with the hole—on your counter—mean more money in your till.

NATIONAL ADVERTISING CAMPAIGN STARTS MAY 10th.

Write for Full Particulars.

FOUR PROPRIETARIES WILL BE ANNOUNCED SHORTLY

5 Ludgate Sq., London, E.C.4

A SATISFIED CUSTOMER IS THE CHEMIST'S BEST ADVERTISEMENT

The Marvel Whirling Spray Syringe



Gold Medal Awarded, Paris, 1902,
by the Société d'Hygiène of France

as the latest and best improvement in Vaginal Syringes. Particular attention is called to the fact that by reason of its peculiar construction the Marvel Syringe dilates and flushes the vagina with a volume of whirling spray, which smooths out the folds and permits the injection to come into contact with and cleansing the entire surface.

Fully Protected by Patents,



IT IS A MARVEL



You can safely recommend it.

Has no rival on the market, is well advertised, pays a good profit, quality guaranteed. The MARVEL is returnable for exchange if found defective and reported promptly.

Trade price, 125/- per doz.

Retail price, 15/- each.

FASSETT & JOHNSON, Ltd.
86 Clerkenwell Rd., London, E.C.1.



NORVIC
Regd.
CRÉPE BINDERS

For all cases where support, elasticity and durability are needed. Rubberless and washable. All widths up to 11 inches.

Wholesale only.

Sole Mfrs. **GROUT & Co., Ltd., Gt. Yarmouth.**
London Agent **T. S. Eastaway, 35 Wood Street, E.C.**

WILSON (RUBBER) GLOVES

(Advertised in "The Lancet.")

SURGICAL, OBSTETRICAL, AUTOPSY, ACID, ELECTRICAL (10,000 volts), HOUSEHOLD, FINGER COTS.

SUPPLIES BY RETURN from STOCK

Enquiries (Wholesale and Export) to:—

The only accredited Agent
in Great Britain for
THE WILSON RUBBER CO.,
CANTON, O., U.S.A.

The largest exclusive manufacturers of rubber gloves in the world

R. S. BLAKER,
10 CANUTE RD.,
SOUTHAMPTON.

Cellulose Wadding

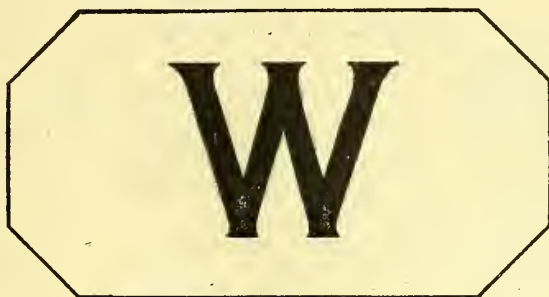
Highly bleached, Quality second to none

Rolls or Sheets in any size or thickness to order.

Rolls of 1 lb., 14 in. wide, 12 ply,
in bales of 1 cwt., always in stock.

OWEN SHIRLEY, 124/127 Minories,
LONDON, E.1.
Sole Consignee for Papierfabrik Sacrau, Breslau.

Reg. Trade



Mark No. 26866.

HAND-TURNED RE-AGENT BOTTLES

Plain or Stoppered with Flat-topped Stoppers.



NARROW MOUTH.



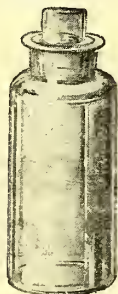
WIDE MOUTH.

HAND-TURNED SHOP ROUNDS

Plain or Stoppered with Grip Stoppers.



NARROW MOUTH.



WIDE MOUTH.

These bottles are of beautiful finish, and are made in a glass free from lead and specially designed with a view to reducing the alkalinity to a minimum.

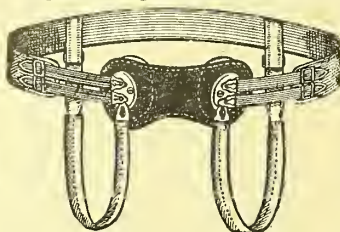
As Containers for Fine Chemicals they have no equal.

Special Prices for Bulk Orders.

WOOD BROTHERS GLASS COMPANY, LIMITED,
BARNSELEY, (Established 1828), ENGLAND.

Telegraphic Address—BELTRUSS,
TWICKENHAM.

Fig. 601. Inguinal Elastic Truss.

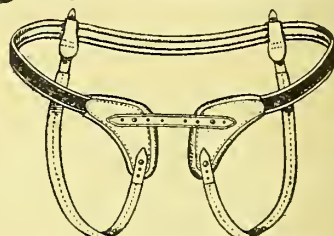


TRUSSES

SURGICAL SPRING AND
ELASTIC TRUSSES.
SEAMED AND SEAMLESS
ELASTIC HOSIERY.
ABDOMINAL SUPPORTING and
POST OPERATION BELTS.
SURGICAL CORSETS.
SUSPENSORY BANDAGES.

Telephone—RICHMOND 1557.

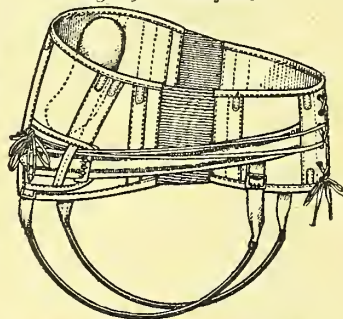
Fig. 641. Peaked Head Scrotal.



ABDOMINAL BELTS

Makers to the Trade of every description of English, French and American Truss Springs.
Sole Agents for the United Kingdom of Great Britain, Ireland and The British Dominions
of the Celebrated

Fig. 19. Kidney Belt.



Crêpe Velpeau Bandages.

THE

R. H. HEWARD Co.,

Crown Road Works,
TWICKENHAM.

Contractors to H.M. Government.

Fig. 583.



Richmond
Shoulder
Brace.

ELASTIC HOSIERY

CRÊPE VELPEAU BANDAGES

NOW
IS THE TIME TO
PLACE YOUR ORDER
FOR
BATHING CAPS
SPONGE BAGS
HOLDALLS

OUR LATEST PATTERNS AND
PRICES SENT ON APPLICATION

ARTHUR BERTON, Ltd.

15-17 Worship Street, LONDON, E.C.2.

MANCHESTER and GLASGOW.
36 Chapel St., Victoria Bridge. 84 Miller Street.

Telegrams: "Aybelim, Finsquare, London."

Phones: Clerkenwell 1347, 1348, 1349 (Private Exchange);



**"BULL
DOG"**

Boracic Socks

Finest 4½d. Sock. Quickest and Largest Sale.

BIGGEST PROFIT

Retail at 4½d. per pair.

"SPEEDWELL" Boracic Socks

Retail at 6½d.

Sample Pair and Special Offer. Terms on application to Makers

Order Socks required by Name either from—

London.—Sangers; Barclay & Sons; F. Newbery & Sons;
Sutton & Co.; Edwards & Sons; Arthur Berton, Ltd.;
Butler & Crispe; May, Roberts & Co., etc.

Manchester.—James Woolley & Co., Ltd.; Quilliam & Co.,
Ltd.; A. Clunie; H. Thompson & Son; Place & Co., etc.

Liverpool.—Ayrton, Saunders & Co., Ltd.; J. Thompson, Ltd.,
etc.

Newcastle-on-Tyne.—Penney & Co.

Plymouth.—Breeze's, Ltd.

Or direct from the Makers—

R. H. ALLEN & CO., MANUFACTURING
CHEMISTS—

SYDENHAM " " **LONDON, S.E.26**

Telephone: Sydenham 2220.

*It will pay
you
to stock it!*



BECAUSE it is by far the best hot water bottle on the market. The price is fixed, so that no one can undersell you. It will be advertised on a large scale. It shows you an attractive profit on cost price.

You can confidently rely upon the "Crusader" hot water bottle, which carries a twelve months' guarantee, giving full satisfaction to your customers. Entirely British, it is extraordinarily strong, and will survive undamaged an amount of hard wear that would utterly wreck any ordinary rubber bottle: it is velvet soft, a cushion for comfort as well as in shape. In its efficiency, endurance and economy—and a good trade proposition—are happily combined. It has been awarded the Certificate of the Institute of Hygiene.



1. Neck is part of body.
2. Only one seam and that made under hydraulic pressure.
3. Light weight.
4. Egyptian cotton fabric reinforced.
5. Cushion-shaped and cushion-soft.
6. Built-in handles.

Twelve months' guarantee.

Fixed retail price, 6/11

Size 15" x 9"

Let us send you a sample—which you can retain or return as you please. You will then be able to prove for yourself the entire truth of every claim we make in connection with "Crusader" quality.

"Crusader"

Rubber Hot Water Bottle

Write us now!

The Crusader Rubber Co., Ltd.
62 London Wall, London, E.C.

TO INCREASE YOUR REVENUE SELL

"TOINOCO"

The Original Brand.

PAPER HAND^{KFS.}

THEY MEAN INCREASED SALES.

The only Paper Handkerchief regularly advertised. Face Price. Minimum Retail.



They are not a Substitute for anything else you sell. There is no Substitute for them.

Stocked by the principal Wholesale Houses.

Sole Proprietors—

TOINOCO HANDKERCHIEF CO., LTD., LONDON. E.C. 1.



WM. WARNE & CO. LTD.

29 GRESHAM STREET, E.C. 2.

India Rubber Manufacturers,

Surgical, Chemical, Domestic Articles, Syringes,
Water Beds, etc.Trade Mark
HollandiaRUBBERFABRIEK HOLLAND
VELSEN, HOLLAND.Trade Mark
R "Stork" F
H

TEATS, SOOTHERS, RUBBER GLOVES, SURGICAL RUBBER GOODS.

Samples and Quotations gladly sent by ENGLISH REPRESENTATIVE, 35 NEW CAVENDISH STREET, W.1.
THE VIPER & RE-COVERING CO., LTD., 7 & 8 POULTRY, E.C.2.

CORRUGATED PAPER, BOXES & PACKINGS FOR ALL PURPOSES

Waterproof Papers, Gummed Paper Tapes, etc. etc.

ENQUIRIES SOLICITED.

Telegrams:
"Corrugated."THE CORRUGATED PACKING MATERIALS CO., LTD.
West Mill, Oxford Street, Ashton-under-Lyne.Telephone:
576 Ashton-
under-Lyne.

MANY SUCCESSES IN THE EXAMINATIONS!

Your Opportunity to

QUALIFY IN OPTICS

PRACTICAL WORK. Students taking the Course
may receive personal tuition in the practical work
AT ANY TIME DURING THE COURSE.Expert Tuition for the SIGHT-TESTING DIPLOMAS
of the Worshipful Company of Spectacle Makers
(F.S.M.C.); the British Optical Association (D.B.O.A.),
or the National Association of Opticians (F.N.A.O.).

Write for full particulars—

C. A. SCURR, M.P.S., F.S.M.C., F.I.O., F.N.A.O., etc.
64 High Street BARNETWESTMINSTER
COLLEGE OF PHARMACY.Principals { G. S. V. WILLS, Ph.C. (Founder).
P. H. WOODNOTH, Ph.C., F.C.S.Revision Course now being held.
Students may enter for separate Subjects.For Details of Arrangements apply to the Principals,
190 CLAPHAM ROAD, S.W.9.

Liverpool School of Pharmacy

2 BLACKBURNE PLACE.

Principal—H. HUMPHREYS-JONES, A.I.C., F.C.S., Ph.C.,
Assisted by I. BUTLER, B.Sc. (Hon. Chem.), M.P.S.REVISION COURSES for the July Examinations,
Parts I & II commenced on April 10.

Students should secure the few vacant benches at once.

Full particulars from Principal

London College of Pharmacy

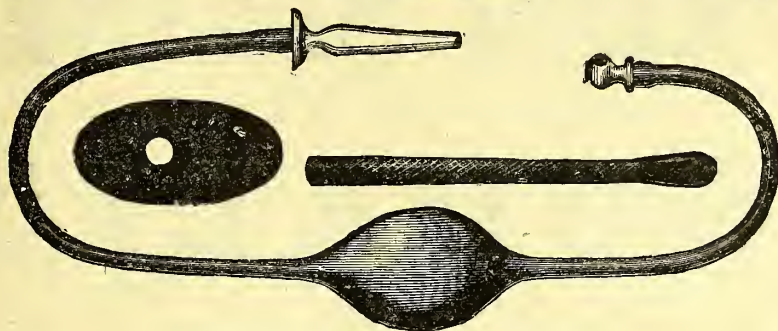
Principals :
H. WOOTTON, B.Sc. (Lond.) C. W. GOSLING, Ph.C.Three months' Revision Courses
for the July Major and Minor
Examinations commenced April 11.

APPLY—

The Secretary, 361 Clapham Road, S.W.9

CHEAP SEAMLESS ENEMA

21/- doz.



21/- doz.

No. 1252.

No. 1252. The "SAFFRON," black polished, complete in card box, per doz. 21/-. This Enema is thoroughly reliable and will command a ready sale if brought to the notice of the public.

CARRIAGE PAID ON ORDERS OF £3 AND UPWARDS.

A discount of 5 per cent. for prompt cash is allowed on all amounts of 10/- and upwards. Money returned if goods are not satisfactory. Write for New Price Lists of Druggists' Sundries, Toilet Requisites, Rubber Goods, Cut Sheet Rubber Appliances, etc.

BURGE, WARREN & RIDGLEY, LTD.

91 & 92 GREAT SAFFRON HILL, LONDON, E.C.1.

**T.H. FORD
LIMITED**



**6. WELL ST.
LONDON, E.C.1.**

Telegrams: Drotcolym, Cent, London.

Telephone: City 6343

"INGOT" CREPE BANDAGE

are guaranteed to comply fully with the requirements of the

B.P.C.

viz.: Weight of Wool: 40 grammes, basis 3" width.

Grade of Wool: not over 30, or under 25.

Normal length: 2½—2¾ yards.

Fully extended not less than twice the normal length.

Guaranteed **BRITISH** made.

STUBBS

Herbert H. Stubbs
Highest Grade
Compressed

CLOTH BALL

white and all colours
Samples & Prices (P.A.T.A.)

from 6 Crystal Palace Park Rd.
Suttonham London, England

ZEAL'S REGISTERED

Clinical Thermometer

The REPELLO requires no shaking down

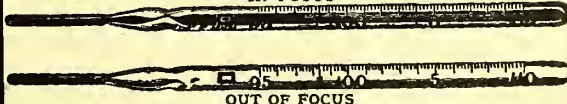
A 30-second pushed back in an instant.



Showing flattened bulb at end.

NEW IMPROVED LENS FINDER

The only Easy Reading Magnifying Clinical on the Market.
IN FOCUS



OUT OF FOCUS

The square mark engraved on lens front locates the Mercury column immediately.

SPECIAL AWARD AND GOLD MEDAL, NEW ZEALAND, 1907

SILVER MEDAL, INDIA, 1909. SILVER MEDAL, LONDON, 1913.

All Clinical Thermometers are supplied N.P.L. Tested unless otherwise ordered.

G. H. Zeal, Ltd., 77 St. John Street, Clerkenwell, London, E.C.1.

Established 1888.

Wholesale Manufacturers of Clinical Thermometers.
Contractors to H.M. Government.

Telegrams: "Zealdom, Smith, London." Tel. No.: Clerkenwell 5202.

SPRING SALINES

—you can buy them best from

GOODALL'S

Already our 1923 Saline trade is in full swing—old customers are buying again and new ones are finding they 'cannot do better than GOODALL'S.'

GOODALL'S Saline lines are all perfectly packed for the high-class chemists' trade; the quality is unvarying and faultless, and the prices—revised right up-to-date—are the keenest on the market.

FOR ALL SALINE LINES

—packed or in bulk—

**HEALTH
S A L T S**

**CITRATE OF
MAGNESIA**

**SEIDLITZ
POWDERS**

**EFFERVESCING
SALINES**



Ask for GOODALL'S Quotations.

**GOODALL,
BACKHOUSE & CO.
LEEDS.**

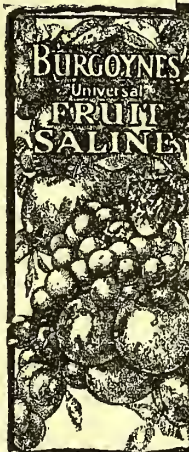
WATERGLASS: If you have not yet got in your stock, order now from GOODALL'S. We offer the best-looking pack—lever lid printed TINS—at very close prices. Ask for sample label. Showcards FREE with every order.

NEW TERMS

80%

profit on cost.

Burgoynes
Universal
Fruit Saline



We invite all those who hold stock
of our Saline to write us for our

NEW SHOWCARD

which will be found an ornament to the Pharmacy.

*It is a beautiful production and
should materially assist sales.*

BURGOYNE BURBIDGES & CO. LTD.

EAST HAM, LONDON, E.6

Maltine

the DIGESTIVE NUTRIENT

Over Forty Years' Reputation

MALTINE (Trade Mark)
 MALTINE with COD LIVER OIL
 MALTINE with C.L.O. and HYPO.
 MALTINE with CASCARA
 MALTINE with CREOSOTE
 Etc.

MALTOLINE (Trade Mark)
 MALTINE with HYPO.
 MALTINE with IRON
 MALTINE with PARAFFIN
 MALTO-YERBINE (Trade Mark)
 Etc.

MALTINE MANFG. CO., 9, HOLBORN VIADUCT, LONDON, E.C.1

Maltoline

TRADE MARK

ESTABLISHED 138 YEARS.

R. J. FULLWOOD & BLAND'S



TRADE MARK.

WORLD-RENOVED

Dairy Preparations

command the largest sale
 in Great Britain and
 Ireland, and are used and
 recommended at the
 PRINCIPAL DAIRY
 INSTITUTES.

ANNATTO RENNET

"Oleo" and "Sunbeam" Butter
 Colour, Essence of Rennet, etc.

31, 33 & 35 Beviden St., Hoxton, London, N.1
 And Rennet Works, Ellesmere, Salop.

THE WORLD'S BEST

HONEY

(New Zealand)

"IMPERIAL BEE"

The FINEST QUALITY THAT BEES PRODUCE

BUILD your HONEY TRADE on a sure FOUNDATION
 QUALITY means REPEAT ORDERS.

Cases	48×1's ..	Screw-top Glass ..	12.9	per doz.
"	48× $\frac{1}{2}$'s ..	" ..	7.6	"
"	48×1's ..	Monopots	11.3	"
"	48× $\frac{1}{2}$'s ..	"	6.	"
"	30×1's ..	Glass Tumblers ..	12.9	"
"	18×1 $\frac{1}{4}$'s ..	Glass Toby Jugs ..	17.9	"

CARRIAGE PAID TO ALL PARTS OF U.K.

Special quotations to the Wholesale Trade and large buyers.
 Quotations for Bulk (cases of 2/60 lb. tins) of all grades on application.

New Zealand Honey Producers' Association, Ltd.

Sole European Agents:

A. J. MILLS & CO., Ltd.

Produce and Canned Goods Department

14, TOOLEY STREET LONDON, S.E.1.

And at
 Birmingham, Bristol, Cardiff, Glasgow, Leeds, Leicester,
 Liverpool, Manchester, Newcastle-on-Tyne

DIABETES



The Cheltine and Manhu Foods for DIABETICS are now manufactured under one management at Cheltenham Spa, Eng., and

full particulars as to trade terms and supplies of advertising matter are gladly supplied on request to

**THE CHELTINE AND
MANHU FOODS CO.**

Cheltine Works, 17 Cheltenham Spa, Eng.



BRAND'S ESSENCE

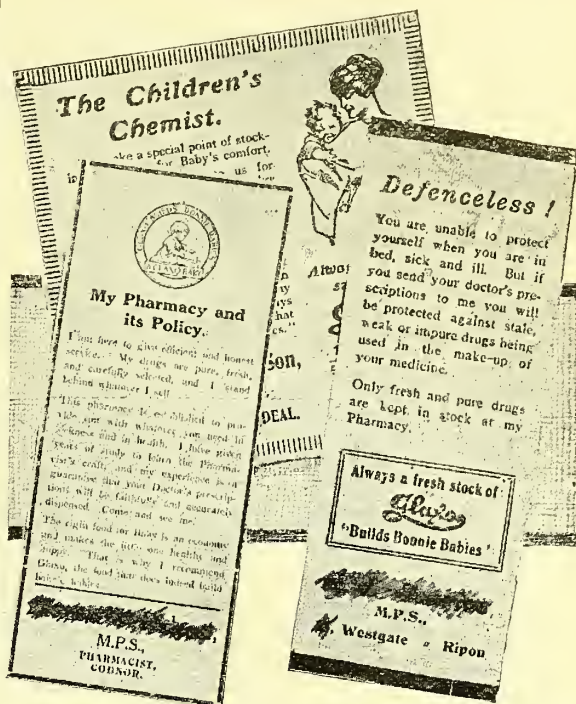
of Beef, Mutton or Chicken consists solely of the juice of the finest meats, prepared with the greatest care under the most hygienic conditions.

Essential in the Sick Room.

Sold by all Chemists and Stores.

BRAND & CO., LTD.

Mayfair Works, Vauxhall, LONDON, S.W. 8.



Why not Advertise?

Pharmacists have greater opportunities for doing bigger business through Prestige Advertising than the ordinary retailer. Look at the three advertisements above—they are facsimiles from some of the personal advertising campaigns which the Glaxo Local Advertising Department have recently prepared for our Chemist friends.

★ Why not let us help you? This service is entirely free, and we will supply you with first-class lay-outs, copy, blocks and all necessary printing instructions for your own advertising campaign in your local Paper, and, in certain circumstances, will pay a proportion of the cost of the space. Fill in the coupon, and you will receive detailed information by return post.

CUT THIS OFF AND POST TO-DAY TO

Glaxo

LOCAL ADVERTISING DEPT., 53 OSNABURGH ST.
LONDON, N.W.1.

Please send me full details of your Local Advertising service. I attach my printed address label hereto.

DIFFERENT because BETTER

HOOKER'S Malted Milk is different from all competitive preparations in the important sense that it is BETTER—better by analysis as well as by every other criterion by which Malted Milk can and should be judged.

To stock on any principle but quality selection is, therefore, to risk depriving one's customers of the widely advertised dietetic advantages of HOOKER'S Malted Milk, and sacrificing needlessly the additional profit associated with its handling.

*Advertising
Material
Supplied
Gratis.*

Hooker's

MALTED MILK

*Thru,
Hooker &
Gilbey, Ltd.,
Buckingham.*

H.T.7

ATKINSON & BARKER'S INFANTS' PRESERVATIVE

THE BEST AND SAFEST INFANTS'
MEDICINE OF OVER 120 YEARS' STANDING.

Prices and Terms on application to R. BARKER & SON, Ltd.
13 Wesley St., C.-on-M., MANCHESTER.

**DOES
NOT
CONTAIN
any
SCHEDULED
POISON.**

Why not Advertise!

in your Local Paper—
it pays. See the inter-
esting Scheme offered
to up-to-date Chemists
on the previous page.

Write to the "Glaxo" Local Advertising Dept. to-day.

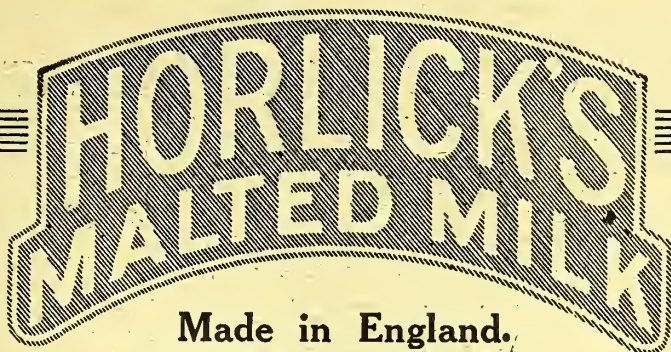


Kellogg's

Krumbled Bran is a health
necessity and should be
eaten daily. It naturally
and permanently relieves
constipation.

Prices and samples from:—

S. D. SIMOND & CO., LTD.,
10 MONUMENT ST., LONDON, E.C.3, ENGLAND.



Made in England.

You may with entire confidence recommend
HORLICK'S MALTED MILK
— The Original —
to your Customers.

Meat and drink in one—a delicious and sustaining Food-Drink which advantageously replaces tea, coffee & other beverages and is an admirable refresher, suitable for all ages.

It is the safest diet for infants and invalids ; being complete in itself and needing no additional milk, it overcomes the difficulties and dangers of a local milk supply.

The Sale of Horlick's Malted Milk—The Original—is and always has been directed through Chemists, while substitutes and imitations are often exploited through other Trades.

Attractive advertising material for Window Display and Counter Distribution free and carriage paid on application to the Company.

HORLICK'S MALTED MILK CO., SLOUGH, BUCKS., ENGLAND.

52% of the Finest Norwegian Cod Liver Oil and Fresh Eggs

The large percentage of oil, the addition of eggs, and the consequent exceptionally high *Vitamin* value of OVIOL, together with its remarkably pleasant flavour, have won for OVIOL the wide approval of the Medical Profession all over Gt. Britain.

OVIOL

The Cod Liver Oil (52%) and Egg Emulsion

The following Wholesale Houses already hold stocks :

Aberdeen	Wm. Davidson, Ltd.	London	Butler & Crispe
Birmingham	Southall Bros. & Barclay, Ltd.		W. Edwards & Sons
Edinburgh	Duncan, Flockhart & Co.		May, Roberts & Co., Ltd.
Exeter	Evans, Gadd & Co., Ltd.		F. Newbery & Sons, Ltd.
Glasgow	W. R. Hatrick & Co.		Sangers.
Hull	Lofthouse & Saltmer, Ltd.	Manchester	Jas. Woolley, Sons & Co.
Leeds	Hirst, Brook & Hirst, Ltd.	Plymouth	May, Roberts & Co., Ltd.
Liver pool	Ayrton, Saunders & Co., Ltd.	York	Raines & Co.

P.A.T.A. Prices : Retail, per bottle, **3/-** Wholesale, per dozen, **26/-**

Or direct from

MACLEANS, Ltd. Manufacturing Chemists, **6 Spring St., London, W.2** 7C

Gelatines

Fine Leaf Gelatine, Pure Calf.

"Albion" Brand (In 1-lb. Packets,
112 × 1-lb. to Case)

Made in England.

FINE CRYSTAL GELATINES.
PURE SKIN GELATINES.
POWDERED GELATINES.

Samples on Application.

OURY, MILLAR & CO. 9 MINCING LANE,
LONDON, E.C.3.

Telegrams: "Olmenth London."

Telephone: Avenue 4978.



*Trufood is continuously
advertised in the medical
and nursing press.*

WEEK in and week out the chief medical and nursing papers carry whole-page announcements of Trufood. The list of media is comprehensive, and effectively covers the professional elements called upon to advise mothers as to the choice of an infant food. As will be seen from the following list, no organ of importance is omitted:—

*The Lancet
British Medical Journal
Medical Press and Circular
Nursing Mirror
Nursing Times
Medical Officer, etc., etc.*

In every announcement you will see the slogan:—

OF ALL PHARMACISTS
in 10oz., 20oz., and 36oz. tins,
at 2s., 4s., and 7s.

These advertisements are also supported by personal calls upon doctors and nurses, and by constant circularisation and sampling. There is nothing at all spasmodic about the Trufood campaign, which is soundly conceived, both ethically and commercially. We count upon you to support our efforts to create good-will between yourselves and the buying public.

THE SUPREME MILK FOOD FOR INFANTS

TRUFOOD

TRUFOOD LIMITED, THE CREAMERIES, WRENBURY, CHESHIRE

London Offices: LEVER HOUSE, BLACKFRIARS, E.C.4

London Depot:

**1 SWAN STREET
MINORIES - - E.1**

Telephone - - - Avenue 6255.



OUR London Warehouse at the above address IS NOW OPEN for the prompt despatch of urgent orders. A full range of all lines and specialities in

**LOZENGES
PASTILLES
COMPRESSED TABLETS
SALINES & CITRATES**
will be held in stock.

**SPRING and
SUMMER LINES**

We can now supply our full range of new and attractive showcards, cartons, etc., for the present season.

THOS. GUEST & CO., Ltd.
ANCOATS - - - MANCHESTER.

Phone :
138 Pendleton

Telegrams :
"Champagne Manchester."
ESTABLISHED 1855.

VIN FERRI CITRATIS, B.P.

Liebig's Beef & Malt Wine

English Port Style

**British and Foreign
Wines of all varieties**
Bottles and Casks.

Specially low-cut prices for the Autumn 1922.

B. ROBINSON & Co. Ltd.
PENDLETON - MANCHESTER.

WRITE TO-DAY AND COMPARE OUR TERMS.



Saint-Raphael

**Tonic, Restorative,
Digestive Wine.**

Known throughout the World, and prescribed in all cases of ANÆMIA, DEBILITY, and CONVALESCENCE, to Young Women, Children and the Aged.

DOSE : One wine-glass after the two principal meals.

Recommended by—
PROF. BOUCHARDAT, Professor of Hygiene, Paris Faculty of Medicine.
DR. MACNAUGHTON JONES, London, England.

"For more than thirty years St. Raphaël Wine has been exclusively prescribed, with success, in the Paris hospitals as a pure tonic, by eminent physicians, such as Magendie, Roson, Chomel, Velpeau, Requin, Monneret, Trousseau, Grisolle, Laënnec, &c."—*Union Médicale*, May 8 and June 12, 1873.

"The 'Vin de St. Raphaël' is often used for ladies nursing their own children; it is preferable to stout, which creates an unhealthy fat."—*The Lancet*, London, England.

"St. Raphaël Wine is most precious in all cases where it is necessary to give tone to the system, without effort or shock."—DR. C. DES BARRES.

Cie du VIN SAINT RAPHAEL, Valence, Drome, FRANCE

**To be obtained from all
Wholesale Druggists.**



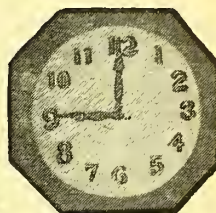
DAYBOOK



LEDGER

MONTHLY
STATEMENTSENVELOPES AND
STATIONERY

"OVERHEADS"



OVERTIME

—You Can Save All This—

on your Credit Business

A New and Simple Non-Bookkeeping
method is provided by the

NATIONAL CREDIT FILE

It dispenses with Daybooks, Ledgers, and
Monthly Statements. Saves the usual "Credit"
troubles and drawbacks. It positively makes
any "Credit" business more profitable.

How it Saves Book-work, Time and Worry.

A credit sale is debited, or payment
credited to the customer's account, in
one writing. No posting up of A/cs;
they are always balanced, ready for
settlement.

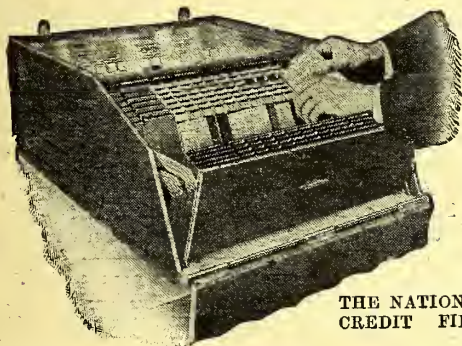
No book-work after shop hours.
The indebtedness on any A/c is
always visible. Proprietor gets more
information and protection, and the
easiest possible control.

How it Saves Expense and Increases Profits.

The easy supervision provided enables
debts to be stopped and doubtful A/cs
limited. It reduces bad debts, saves
disputes, errors, and hasty decisions
that lose trade.

Prevents forgotten charges. Saves
cost of stamps, stationery and
books. Also any expense on book-
keeping. The system is quick,
economical and profitable.

IT WOULD PROVE A WONDERFUL HELP TO YOU.

THE NATIONAL
CREDIT FILE.

The National Cash Register Co. Ltd.
225 Tottenham Court Road, London, W.1.

**POST THE
COUPON
TO-DAY
for further
details.**

The
N.C.R. Co., Ltd.,
225
Tottenham Ct. Rd.,
London, W.1.

Please send without
obligation, further details
of your National Credit File.

Name

Address

C. & D.



A Quick Selling Line!!
**Lavender
 MOTH
 TABLETS.**

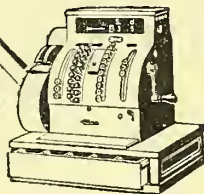
Saves Clothes, especially
 Woollens and Furs, from
 destruction by Moths.

☛ Sample tin free on application.

Price:- 3 dozen @ 5/- per doz.
 12 doz. @ 4/9 per doz.

H. & T. KIRBY & Co., Ltd.,
 Newman House, WILLESDEN GREEN, LONDON, N.W.2.

**Opportunities
 for
 Retailers**



We often take back used
 Cash Registers when
 customers are installing
 larger or more up-to-
 date machines. These
 National Cash Registers

**Thoroughly Overhauled
 and Rebuilt**

are sold under the
 Company's full guarantee
 at reduced prices.

Write for details of "Nationals" available.

Dept. R.5,
The National Cash Register Co. Ltd.,
 225, Tottenham Court Rd., London, W.1.

Cellophane
**What
 Is It?**
CELLOPHANE

is a **transparent** film of pure Cellulose, **absolutely** air, grease, and odour proof, **unaffected** by cold, heat or moisture, and **sterilisable**.

An **ideal wrapping** for Soap, Drugs, Tablets, Bath Crystals, Perfumery, Provisions, Sweets, Surgical Dressings, Articles of Toilet, Sponges, etc., etc.

Will keep your Goods, Boxes, Bottles, and delicate Labels **clean** on the Counter and in Shop Windows, allowing the Articles to be seen **by transparency**. Can be had colourless, coloured and embossed.

Also in the shape of **Labels** for Bottles, and **Discs** for Creams, Ointments, Boot Polish, &c.

Cellophane Envelopes and Bags, printed or not.

Agents Wanted where not represented.

Prices, Samples and Particulars from

The CELLOPHANE COMPANY
 (GUSTAVE LECLERCQ).

7, 8 & 9 Bird Street, LONDON, W.1.

SYNTHETIC OTTOS

"Zinyl" Brand (Regd.)

TRUE SYNTHETIC PRODUCTS

THESE Ottos are in most cases actually stronger than the corresponding essential oils, and will be found wonderfully economical in all Toilet Preparations. They are, of course, far away stronger than the numerous Concentrated Perfumes advertised.

"The Synthetic Otto of Rose is especially good, and has given the greatest satisfaction to even the most exacting critics."

PERFUMERY AND ESSENTIAL OIL RECORD, May 1918.

H. M., 79 Lower Sloane Street, S.W., July 11th, 1918.—"I have found your Synthetic Otto of Heliotrope very satisfactory."

Another correspondent recently described the Synthetic Otto of Jasmine as "delightful"—which we quite endorse.

G. S., Aberdeen.—"I am highly pleased with your Ottos."

THE CHEMIST AND DRUGGIST recently described the Synthetic Otto of Violets as "distinctly the real thing," and it is the closest imitation of the natural flower we have met with.

This journal also, as far back as 1912, in a very favourable notice, described the "Zinyl" Brand Ottos as "a triumph of modern synthetic chemistry."

H. E. STEVENSON & CO.

MANUFACTURING CHEMISTS AND WHOLESALE DRUGGISTS,

122 Great Suffolk Street, London, S.E.1.

For prices refer to the "Chemist and Druggist" Directory.

HARVEY'S

Watts' Embrocation, or Curb Bottle.
 Aconite Powders.
 Worm & Condition Powders.
 Watts' Red Lotion.
 Hair-Restoring Ointment
 Edos, or Tasteless Purging Powder.

HARVEY'S

Great

Remedies for the Horse

Protected Prices
 (P.A.T.A.)

HARVEY'S

Koppes Powder.
 Parasiticide.
 Thrush Specific.
 Hoof Ointment.
 Hair Restorer (Human)

Of all the leading Druggists' Sundries Houses.

HARVEY & COMPANY, Ltd., Dublin.



A Small Display, and— The Rest is Easy.

Messrs. J. & J. CANAVAN, Chemists, Portadown, write:—"We have sold 6 dozen tins of 'RODINE' in about a month. In fact, 'RODINE' requires no selling. We just put a small display on the end of the counter on Market days, and the rest is easy."

"Rodine" Requires No Selling

"RODINE" is the easy selling, attractive, satisfactory side-line. It gives satisfaction to the Customer and nearly 100% profit to the Chemist. It pays to push "RODINE." Get it on best terms from the Sole Maker,

HARLEY, Manufacturing Chemist, PERTH SCOTLAND.

Continuous and Steadily Advertised Goods FOR DESTROYING RATS AND MICE

DANYSZ VIRUS

Retail Price (protected).	Net Wholesale Prices.
Virus for Rats and Mice, single tube, 2-3 tubes, 5-	.. 15/- per doz.
Virus for Mice only - single tube, 1 6-3 tubes, 3-	.. 9/- ..

Date-expired tubes returned to us postage paid will be exchanged free of charge.

Danysz Virus in Liquid Form

Retail Price.	Wholesale Price.
Quart Bottles 6/- each	4/6 each
Pint .. 4/6	3/9 ..

HALLER'S EXTRACT OF SQUILL and DANZO RAT KILLER

Discount off Retail Prices 25% Monthly Account, or 33% cash with order.

	Retail	Monthly a/c	Cash with order.
4 gall. tins .. 10/-	7/6	6/6	
1 " " .. 18/-	13/6	12/-	
5 " " .. 80/-	60/-	53/4	

DANZO BEETLE POWDER

For destroying Blackbeetles, Cockroaches, Crickets, &c.
 Retail Prices (protected). Wholesale Prices per doz.
 In tins 3d. In boxes of 2 doz. 2/1
 " 6d. " 1 " 3/8
 " 1/- " 1 " 7/5
 " 2/6 " 1 " 18/-

Danzo Beetle Powder will not deteriorate by keeping.
 CARRIAGE PAID ON ALL ORDERS.

To be obtained from

HALLER LABORATORIES, LTD.,
 325 Borough High Street, LONDON, S.E.1

Telegrams: "Virudana, Sedist, London."

Telephone: Hoo 2717

CUFF'S FLY OIL

For Maggots in Sheep.

The cure for this troublesome complaint that has stood the test of nearly a hundred years.

Write for lowest carriage paid terms and Window Show allowance.

J. H. CUFF & SONS, Wholesale Chemists and Druggists,
 (Harcroft & Cuff Ltd.)
 453 Caledonian Road - London, N.7.

BRITOL PREPARATIONS

A QUICK SELLING LINE with GOOD PROFITS

BRITOL DEATH TO MOTHS

The only actual safeguard against moths.

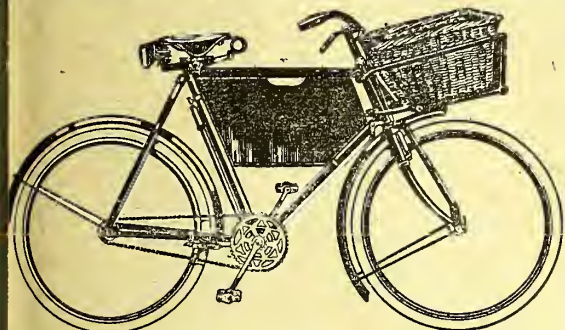
Ask for our Representative to call— or send enquiries to:—

Sole Manufacturers:

Britex Chemical Products, Ltd.
 Audrey House, Ely Place, London, E.C.1.

The Famous
JAMES

CARRIER CYCLES



BUILT of extra strong material for Carrier Service. No ordinary cycle fittings. Prices from £12. Write for full Catalogue of Carrier Cycles and Tricycles.

Our local AGENT will CALL ON YOU AND GIVE FULL INFORMATION.

SERVICE

Our agents give full repair service at ALL TIMES

The James Cycle Co. Ltd.
GREET " " " " BIRMINGHAM.

London Showroom, 22 Holborn Viaduct, E.C.1.

RAZORS AND SAFETY RAZORS IN STOCK.

BLADES TO FIT ALL SAFETY RAZORS;
RAZOR BLADE STROPPERS (Various designs);
FEMALE FIGURES IN SOAP (Various shapes).

Bargain List sent on application.

L. FRANKENBERG, 15 Stoney Lane, Houndsditch, E1.
Phone: BANK 448.

NEW GILLETTE BLADES (Canadian)

28/6 PER BOX, 3 for £4 4 0. Post paid.

Warranted NEW U.S.A. GILLETTE BLADES 30/- per box, post paid.

VALET BLADES .. box for 35/-
EVER-READY gross .. 30/-
CLEMAK (3 doz. packet) .. 2/6
7 O'Clock, Durham Duplex, etc.
Send for "Bargain Price Lists"

VACUUM FLASKS (case lots) .. 10/6 doz.
HOLLOWGROUND RAZORS from 12/- doz.
Gillette Browne, 3/4 ea.; New 21/- Model 14/-
VALET C Model, 4/- each; 25/- Model 14/-
Flints, 2/6 gr. Scissors. Knives from 2/6 doz.

SPECIAL "BROWNIE" OFFER for 1 dozen and 3 dozen lots. Write for quotations.

LOUIS J. STAMBOIS (Dept. C), 34 Call Lane, LEEDS.

BOOKS FOR PHARMACISTS.

Send us a postal card and we will send you a 32 page catalogue of professional and business books for pharmacists, and a copy of

"THE SPATULA"

an illustrated monthly magazine for druggists, full of American snap and enterprise.

THE SPATULA, BOSTON 14, MASS, U.S.A.

Death Sentence

by order of



"EXTERPEST"

NON-POISONOUS

Guaranteed to Exterminate
not Stupefy

BEETLES, COCKROACHES, CRICKETS,
FLEAS, STEAM FLIES, ANTS, MOTHS,
POULTRY INSECTS, WOOD LICE, and
all similar Insect pests and their eggs.

Mr. B. ———, Bury.
I am very pleased with Exterpest. It has worked wonders for me.

Sanitary Dept. ——— Feb. 28th, 1923.
I have pleasure in recommending Exterpest as an insecticide.
—————, Chief Sanitary Inspector.

T. B. R. ———, Southport. 16.4.23.
Please forward ——— doz. tins of Exterpest. We might say every tin of our former order was sold on recommendation.

Exterpest holds certificates of efficiency of Institute of Hygiene.

OBTAINABLE FROM YOUR
USUAL WHOLESALER.

You can recommend it as thoroughly
efficient and your profit is good.

Enquiries Invited.

Retails in Tins at 6d., 1/3, 2/6, 5/-

Smethurst & Meade, Ltd.

16 John Dalton St.,
MANCHESTER.

FILING COVERS

For The Chemist and Druggist Retail Price List.
In Stout Cardboard with cords. Price 1/- each post free

The Chemist & Druggist, Publications Dept.,
42 Cannon St., London E.C.4

THE "JARASO"

Personal Weighing Machine

BRITISH PATENT No. 23493/1910

*Small and Compact. Weighs from 1 lb. to 20 stone.
Suitable for Bathroom, Bedroom, Nursery, etc.
The weight is reflected automatically in the mirror.*

SIZE 11 × 7½ × 8 inches.

WEIGHT 19 lbs.

RETAIL PRICE REDUCED TO

45/- each

Liberal terms to Wholesale Houses,
Shippers and Export Merchants for
re-sale in Great Britain, Ireland and
British Colonies only.

All particulars from:

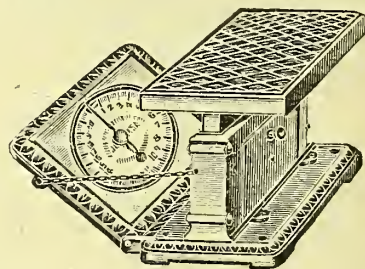
ALBERT C. SHOPPEE, LTD.

(SOLE LICENSEES)

Belmont Street, Chalk Farm, London, N.W.1.



For Men Women, or Children.



JAPANNED WHITE.



Trade Mark.

**KNOWN ALL OVER THE
WORLD AS THE
STANDARD LIQUID
PLASTER.**

TRADE PRICES.

Retail Price.		Trade Price.
10½d. Pocket Size...	... ..	8/5 doz.
2/- Medium Size ...	... ..	19/2 "
3/- Physician's Size ...	... ..	28/9½ "

£3 and up Carriage Paid.

Order through your wholesaler or direct

Sole Agent for British Isles and Colonies—

J. E. GARRATT,

96 Southwark Street, London, S.E.1.

MAC-SON'S SMALL AD. COLUMN

POMMADE HONGROISE—Job Clearance
line—13/6 per gross.

CAMPOR ICE—BLOCKS—Send for
Sample and state requirements.

THE KUTE WRIST STRAP—If you do
not already stock this line, get busy
now. Sample free on request.

GINGER BEER POWDER—NUTYPE—
The line of the moment. A 4½d.
packet makes 2 gallons. If your
district is thirsty, get this going. Free
Sample on request.

LEMONADE POWDER—NUTYPE—The
get-up of this line creates the sale, and
the contents the continuity idea. Ask
for Sample.

Send a P.O. for 5/- for our Traveller's Surprise
Packet. Money returned if not satisfied.

MACSON'S LTD.

Manufacturing Chemists,

BLYTH, near NEWCASTLE-ON-TYNE.

Companion Lines



WELL PACKED IN
BOXES OF 2 DOZEN.



WELL PACKED IN
BOXES OF 3 DOZEN.

‘SIMPLIC’ REGD. SOOTHERS

Made of purest
India Rubber.

No taste or smell.

Practically indestructible.
The most perfectly made
all-rubber soother ever
offered for sale.

‘SIMPLIC’ TEATS

REGD.

Made of purest India Rubber.

In 8 different patterns.

Each in separate carton.

IN BOXES OF 3 DOZEN.

Ask your Wholesaler for “Simplic” REGD.

C. MELIN & CO.

ESTABLISHED 1865.

7 INDIA ST., CRUTCHED FRIARS,
LONDON, E.C. 3.

VACUUM FLASKS

GLASS BOTTLES

GLASS AMPOULES

TUBES

PUSH-ON CAPS
AND CORKED.

DIRECT FROM THE WORKS.
WHOLESALE AND EXPORT.

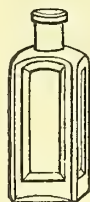
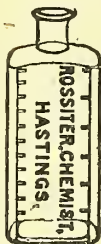
THOS. SWALES

SUNDRIES.

Dispensing Bottles (W)
Dispensing Bottles (ordinary quality)
Hygienic Feeders in Cartons
Hygienic Teats and Valves
"Howard" Cloth Cleaners
"Howard" Corn Velvet
Bidwell's Brushes
Chip and Chepette Boxes
Surgical Dressings, B.P.C.
Brushes (Tooth, Nail, Shaving, etc.)
Trusses, Elastic Stockings, etc.
Ivory Small Tooth Combs
Enemas and I.R. Syringes
Clinical Thermometers
Loofahs and Sponges

PRICES AND QUALITY RIGHT.

20/24 Butts Court, and 89 Albion St., LEEDS



GLASS BOTTLES

Medical Flats, Panels, Vials, Poisons.
Kalis, Limes and Feeders.

Wholesale and Export.

Samples and Prices on application.

FARROW & CO., 87 Borough High St., LONDON, S.E. 1.

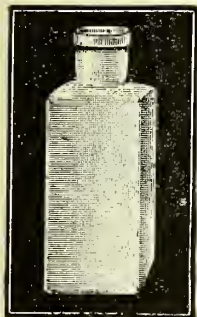


BOTTLES

FOR ALL KINDS, WRITE TO— **FREDK. YOULDON** (Formerly Proprietor of E. YOULDON, Established 1840)
Phone : London Wall 3529. Portland House, 73 Basinghall St., London, E.C.2 Telegrams : "Youldon, Stock, London."

A TIMELY SUGGESTION

See to your summer glassware now, we have stocks, or you can order forward.



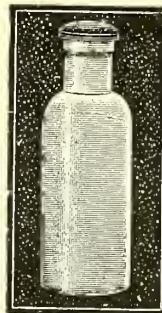
Cheltenham.

LIMES.
KALIS.
BRILLS.
TABLET.
BOTTLES.
POMADES.
PANELS.

SCREW NECK FEEDER.
Dame Hubbard.

MEDICALS
VIALS.
TOBINS.
CANNONS.
TUBES.

&



Kali.

CHEMICAL & LABORATORY GLASSWARE.

JULES LANG & SON

CHARLTON WORKS, CHARLTON PLACE, ISLINGTON, LONDON, N.1.

Telephones: North 2770-2 (3 lines).

Codes: A B C, 5th Edition, Scott's 10th Edition (1906).

Telegram: "Assorted, Phone, London."

Bentley's Complete Phrase Code.



Health Salts

TINS

Stock Designs or to
Customer's Design.

HORNBY & CO., 36 High St., HULL

14th SEASON.

"MILNER" CLEANER

:: FOR ::

WHITE STRAW HATS

Popular Price, 3d.

Carriage Paid Parcels: 6 dozen, 10/-; 12 dozen, 19/-
13 to dozen for Cash with order.

DISCOUNT: 2½% on 20/- orders; 5% on £5; 7½% on £10.

MILNER'S CHEMICAL CO., Liverpool.

Stocked by most Wholesale Houses.

ALL KINDS
PLAIN AND
DECORATED

TINS

WHOLESALE ONLY

ERNEST TAYLOR LIMITED

BREEZE LANE WORKS,
WALTON, LIVERPOOL

ESTABLISHED 1848 **E. FORSHAW & SON LTD** TEL 123.
SOAP AND CHEMICAL PLANT MAKERS,
WARRINGTON, ENGLAND.

SOAP & CHEMICAL BOILING PANS
STEAM JACKETED PANS
MIXING PANS
EVAPORATORS, STILL 65
AND EVERY DESCRIPTION OF
SOAP AND CHEMICAL PLANT.

No 1 Plant For Experimental purposes

No 2 Plant Output 100 to 200 pounds per day

No 3 Plant Output 300 to 400 pounds per day

No 4 Plant Output 600 to 1000 pounds per day

No 5 Plant Output 2000 to 2500 pounds per day

No 6 large combined triple granite roller mill with triple rotary cutter. Granite rollers 72 inches long, 20 inches diameter.

No 7 improved multiple mixing and mixing mill with 162 or 14 rollers. This may be used in conjunction with our No 6 or No 7 plodder. Output 3 tons per day.

No 8 mainmill plodder with reduction gear for Motor drive. Output 3 tons per day.

No 6 Grant Eroptic lined plodder. Output 2 tons per day.

Toilet Bar Cutting Machine.

Rotary Cutter or Shredder.

No 6 Grant Quadruple Roller. Output 2 tons per day.

ESTABLISHED 1848
E. Forshaw & Son Ltd
SOAP AND CHEMICAL PLANT MAKERS
WARRINGTON ENGLAND.
MILLED TOILET SOAP PLANT.
HOUSEHOLD AND LAUNDRY SOAP PLANT.
GLYCERINE EXTRACTION PLANT.
CAUSTICIZING PLANT.
TALLOW MELTING PLANT.

CONTAINERS

VICKERS LIMITED are specially engaged at their Erith Works, Kent, in the design and manufacture of the most up-to-date plant for making all kinds of pilferproof shipping containers.

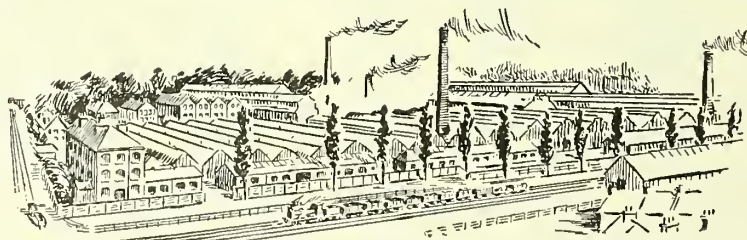
This form of container is lighter and stronger than a wood case—also more convenient as it can be stored in the flat and made up as required. It will also be found to be cheaper. Vickers Limited are in the position to give free advice as to plant and can now supply the machinery.

ERITH.

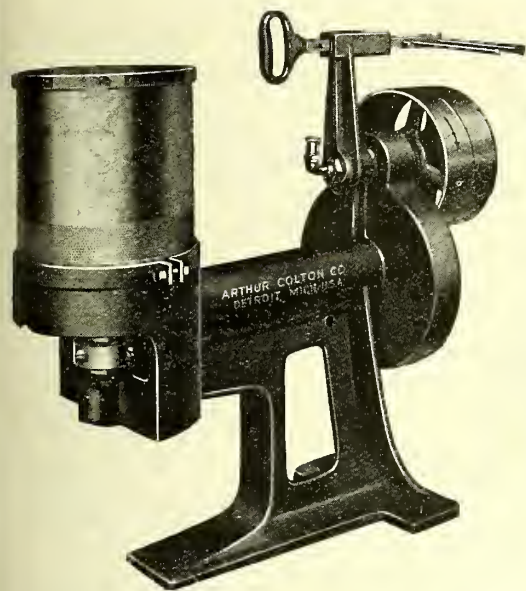
Department No. 75

KENT.

Telephone:
ERITH 68



Telegrams:
**VICKERS
ERITH.**



N^o. 3 COLTON ROTARY WET GRANULATOR.

THIS is a new design machine that is capable of producing an unusually firm quality of granulation.

The design of the machine has been carefully studied with a view to simplicity in cleaning, and for this purpose it is *only necessary to loosen the clamping bolt* at the base of Separator and *one pin in Spreader Head* and all movable parts are available for cleaning.

Capacity : 200 lbs. Sugar Granulation per hour.

Floor Space : 12 by 28 inches.

WRITE FOR PRICE AND FULL PARTICULARS TO

SOLE BRITISH
AGENTS:

JOHN J. GRIFFIN & SONS, LTD.

Kemble Street, Kingsway, LONDON.

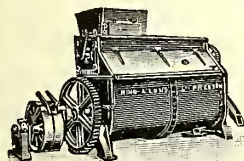
SELF-FIXING
HERMETIC
WASHABLE
BOTTLE CAPS
ARE
— ELEGANT —
— EFFICIENT —
— STRONGEST —
— CHEAPEST —
and BEST.

The VISCOSÉ
Development Co., Ltd.
BROMLEY :: KENT

**'SEMREH' SELF-FIXING
BOTTLE CAPS**

"ATLAS" PATENT SIFTERS & MIXERS

Combined or Separate Machines.



Designed to combine simplicity, accessibility, and ease of operation.

Various sizes

**DRYERS
GRINDERS
BALL MILLS**

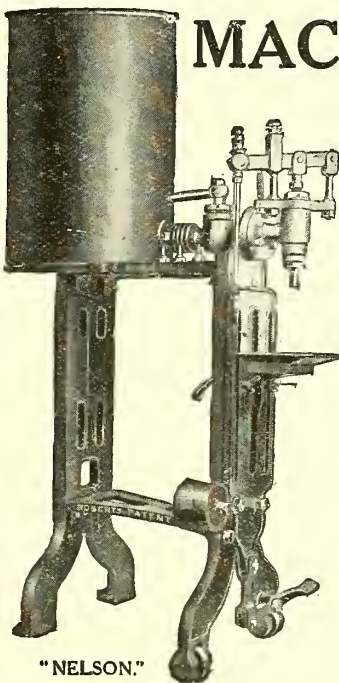
HIND & LUND, LTD.,

ATLAS WORKS, PRESTON.

Established 1791.

(2)

ROBERTS' ORIGINAL PATENT BOTTLE-FILLING MACHINES



Don't waste money on imitations, buy Roberts' Machines which actually Created the Records for

**CLEANLINESS
SIMPLICITY**

and Rapidity in
Bottle Filling.

NOTE the Address :
**ROBERTS' PATENT
FILLING MACHINE CO.**
33 ROUND CROFT ST.,
BOLTON.

Our latest patent
"Alpha," price £14,
will fill 10 gross bottles
per hour.

Write for Particulars.
All Rights Reserved.

A dependable Service of high efficiency

Dependable in every sense of the word. Every spool sent for Developing and Printing is returned to the Dealer in the time promised. That the Service is unusually high in efficiency goes without saying, for it has all the expert experience of the wonderful craftsmen employed on the staff.

**24
HOUR
SERVICE
ALWAYS**

PHOTOPRESS, 3 Johnson's Court, Fleet Street, London, E.C.4.

DEVELOPING :: PRINTING

of real merit by expert workers Best work :: Best speed
Best materials All work received first post is despatched

SAME DAY

So confident are we of your satisfaction that your first spool will be developed, printed and returned

FREE!

Daily collection and delivery within 5 miles of EALING, where we have really first-class works, with very latest equipment for speed and accuracy. We pay postage one way, and allow 33½% discount,
LET US ENLARGE FOR YOU!

THE ROLL FILM COMPANY,
Shaftesbury Hall, 5a Uxbridge Road, EALING, W.5
WE ALWAYS GIVE REAL SATISFACTION TO ALL.

NO CHARGE FOR FAILURES.

SEND YOUR FILMS AND PLATES TO

FOTOCO (1923) LTD.

FOR DEVELOPING, PRINTING AND ENLARGING. QUICK SERVICE. BEST WORK. WRITE FOR LIST AND TERMS.

AGENTS WANTED.

FOTOCO (1923) LTD., 17 BURY STREET, LONDON, W.C.1.

PRINTS DE LUXE

Will double the turnover of your D. and P. Dept. in a very short time. Our prints de Luxe are made by a special process on special paper, and there are no other productions from snap-shot negatives like them. Send a few good negatives and we shall send some specimen prints.

We collect and deliver in most parts of London daily.
LESLIE'S DEVELOPING SERVICE, Catford, London, S.E.6

FREDK. FINK & CO.,

10 & 11 MINCING LANE, LONDON, E.C.3.

**SPECIALITIES.—Gums Arabic and
Tragacanth as Imported or finely powdered.**

To CHEMISTS and DRUG STORES, IT PAYS to sell
FARMER'S "BAITED"

PHOSPHOR PASTE

Made from an improved formula. It is the BEST RAT and MOUSE POISON
IN THE WORLD.

Jars 4d., 7½d., and 1/3. KINDLY ORDER from SUNDRY HOUSES.
ONE USER recommends to another.

Export Agents: **AYRTON SAUNDERS & CO., LTD.,**
24 Hanover Street, Liverpool.
Manufacturers: **F. FARMER & CO., HOMERTON, LONDON.**

"DEPENDABLE TOBACCO WHOLESALESAERS."

SINGLETON & COLE, LTD., CANNON ST., BIRMINGHAM.

MIXED PARCELS A SPECIALITY.

Established Fifty Years.

Price Lists mailed on request.

A PROFITABLE SIDE LINE
FOR CHEMISTS.

The Best Hand-made Cigarette in a New Packing

Corinthian Sundried Virginia

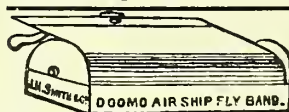
The Brand to Handle. 1/4 per box of 20.

Carriage paid on any quantity. ALL TOBACCO SUNDRIES.

Enclosure sent to Wholesale London Houses.

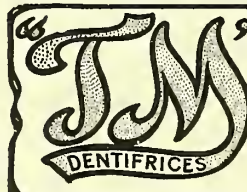
SADLER & MOORE, Spital Square, London, E.1
Bishopsgate,

DOOMO AIRSHIP FLY BAND



Write for quotations
A wide, long band,
sticky on both sides.

SMITH & CO., Doomo Works, NEWARK



THE TOOTH PASTE FOR SMOKERS

1/- P.A.T.A., 7/6 per dozen. ½ dozen
Bonus on 3 dozen. The Powder—
6d. P.A.T.A., 3/- per dozen. 3 dozen
of each allows us to send the "Peak"
show that makes a profitable "stir"
anywhere.

THOS. CHRISTY & CO.
4-12 OLD SWAN LANE, E.C.4.

BOTTLES.

I solicit your enquiries for MEDICAL FLATS in all sizes, plain and graduated, MEXICANS, POISONS, KALIS, LIMES, VIALS, CANNONS, OVALS, BRILLIANTINES, in all shapes. SCREW JARS, TABLET BOTTLES, etc. etc. All bottles used in perfumery and chemist trades. Special shapes made.

Wholesale quantities only.

VAN DER HOEKS, 321/23 Bank Chambers, 329 High Holborn, LONDON, W.C.1.

A NEW
QUICK-DESPATCH SERVICE FOR CHEMISTS
 Expeditious work by Experts.

FILM & PLATE

DEVELOPING & PRINTING

BEST RESULTS FROM ALL EXPOSURES

*Before fixing up for the oncoming season
 Chemists will be well advised to write for*

NET WHOLESALE TRADE PRICE LIST

to
CHRISTIE & HODGSON Ltd., 246 West St., SHEFFIELD.

Our Motto: "Service."

DEVELOPING.

All sizes, up to
 $\frac{1}{4}$ -plt., 6 or 8 expos., 4d.; Postcard and 5×4 , 5d.;
 $\frac{1}{4}$ -plt. and 7×5 , 8d. 12 expos., 50% extra.

PRINTING.

All sizes, up to
 $3\frac{1}{2} \times 2\frac{1}{2}$, 1/2; $4\frac{1}{2} \times 2\frac{1}{2}$, 1/5; $\frac{1}{4}$ -plt. 1/8; Postcards,
 1/11 per dozen.

ENLARGING.

$\frac{1}{4}$ -plt. Card, Singles, 5d.; 3 off 1 neg., 4d.;
 6 Assorted, 4d. each.

Postcard Enlargements.—Singles, 4d. each; 6 off
 1 neg., 1/7 $\frac{1}{2}$; 12 off 1 neg., 2/3.

Post paid on all work over 2/-, except glass plates.

COMPARE OUR PRICES.
 Despatch in 12 hours provided the
 order is received by first post.

A. J. SHAWYER & CO., Swindon, Wilts.

DEVELOPING and PRINTING SAME DAY SERVICE

Bright Sparkling Prints that Please.

Zodella Service will help your business.

Write for Trade List and Terms Now.

Only a limited number of New Accounts to be opened.

Wallace Heaton Ltd.

17-27 CHANGE ALLEY, SHEFFIELD.

PHOTO WORK FOR CHEMISTS BY CHEMISTS.

Best Work at Lowest Prices.
 Work received by morning post
 returned the same day. Lowest
 prices in the trade. Send for
 List. **POST CARD EN-
 LARGEMENTS, 3/-**
 Order Books, &c., supplied.

FORBEST LIMITED, Broughty Ferry.

Use our Service for Better Developing and Printing!

MANY people will become amateur
 photographers this year. And our
 Developing and Printing Service
 is going to make them enthusiastic about
 their negatives and prints. It pays! It
 pays you because you will sell more films.
 It pays us because you will always use
 our Service. Start now! Not to-morrow;
 not next week, but now! Send a spool.



Let us prove to
 you the value
 of better nega-
 tives and prints.
 Drop us a card
 for our latest
 list — contains
 full information
 on our Service,
 which meets
 all needs effec-
 tively.

Express Developing Service
 296 High Road., Streatham, S.W.16.

Developprint

THE DEALER'S SERVICE

Spools developed, perfectly printed, and posted back
 same day. Enlargements three days. Send trade card
 for price list and descriptive pamphlet, mentioning C. & D.
 Contracts now being arranged for coming season.

GERALD MORRIS
 KODAK SPECIALIST
 ROCHESTER



BROMIDE AND GASLIGHT POST CARDS

All Surfaces packed in 100's. 23/6 per 1,000 carr. paid
 Also VARIOUS PAPERS and CARDS. Enquiries solicited
 Quality guaranteed. Money refunded if unsatisfactory
 Apply **J. BARLOW** 44/46 Wandsworth Road, S.W.8.
 Telegrams: "Enlarbromi, Clabroad, London." Phone: Brixton 2166.
 ESTABLISHED SINCE 1907

PURE ORANGE WINE

A. MILLAR & CO., LTD., DUBLIN

(VINUM AURANTII B.P.)

Prepared in strict accordance with the Formula of the British Pharmacopoeia.

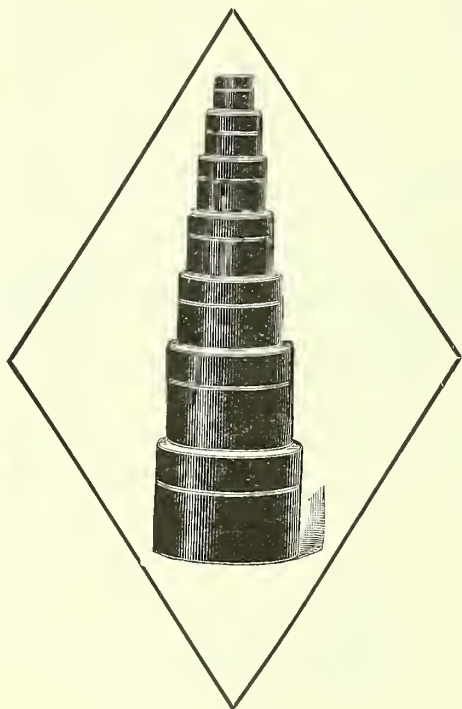
(Wholesale only)

Sample* from Head Office, Thomas Street, DUBLIN, or London Office, 74 Great Tower Street LONDON, E.C. 3.

MENTION
ROBINSONS'
MAKE

WHEN ORDERING FROM
 YOUR WHOLESALE HOUSE
 YOUR NEXT SUPPLY OF

PILL BOXES



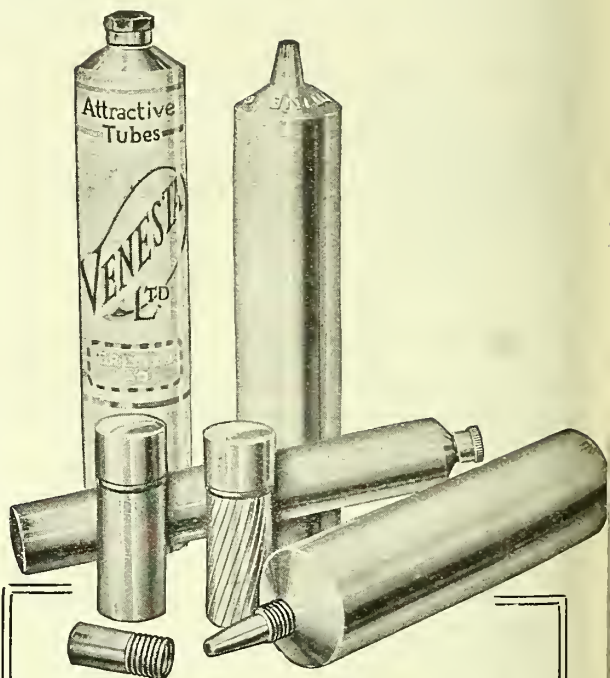
BRITISH MADE BY BRITISH LABOUR.

SUPPORT HOME INDUSTRIES.

ROBINSON & SONS, LTD.

BOXMAKERS TO THE
 CHEMIST TRADE

CHESTERFIELD.



Venesta Tubes

When ordering your next supply of tubes remember that Venesta collapsible tubes possess a quality and finish that make them a real selling force.

They are made from Pure Tin, Lead or Lead-coated with Tin and supplied plain or enamelled and printed with designs to suit customer's own requirements.

We also supply Lip-salve Cases, Sprinklers, etc., and shall be pleased to forward illustrated lists, samples and current prices on application to—

G. Dept.

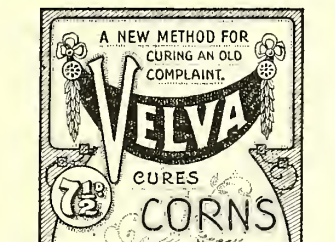
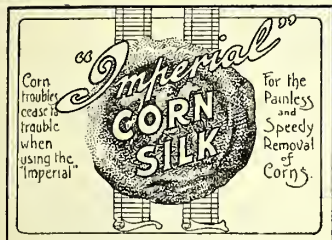
VENESTA LTD.

1 Great Tower Street, London, E.C.3.

Actual Manufacturers of
TINFOIL

Plain, coloured and embossed in any size, gauge or shape.

Envelopes FOR CORN SILK & CORN VELVET



THESE ENVELOPES ARE ALL LITHOGRAPHED IN THREE OR FOUR COLOURS, WITH THE CUSTOMER'S OWN NAME AND ADDRESS.

SEND FOR SAMPLES OF THE ACTUAL ENVELOPE

EACH DESIGN IS COPYRIGHT REGD. WELL KNOWN BY THE PUBLIC. WILL COMMAND GOOD SALES.

Full Set of Samples to Colonies charged 10/6, which amount we credit on Order of £10 and upwards

THOMAS WAIDE & SONS LTD.

Chemists' Printers, LEEDS.

We Exhibited

at the **Peldo**
(Patent applied for)

IDEAL HOME EXHIBITION

and created thousands of new users.
See that you get **YOUR SHARE.**

IF YOU DO NOT ALREADY STOCK
"PELDO," IT CAN BE OBTAINED
FROM ALL THE LEADING PATENT
HOUSES, OR DIRECT FROM US.

RETAIL PRICE
(P.A.T.A.) **1/6**

WHOLESALE
PRICE **13/6** DOZ.

Showcards and Window Display Material supplied.

Remember "Peldo" business is all new business

Sole Proprietors and Manufacturers :

C. R. HARKER, STAGG & MORGAN, LTD.

DEVON WHARF AND BELL WHARF,

EMMOTT STREET, MILE END, LONDON, E.1.

Only 21 more days

in which you can take advantage of the very liberal Palmolive introductory

POST CARD SCHEME

Thousands of retailers have availed themselves of the quick and certain profits which this scheme presents, but there are several thousand more who still may do so if they get their orders in before the offer closes.

What the Scheme is

Half your initial stock of Palmolive Soap shifted immediately after delivery.

We shift it for you and pay the bill. This is how it works:

On your first order we will supply you with 36 ready-stamped post-card-coupons with every gross of Palmolive Soap bought. These are to be sent to your customers. All you have to do is to address and post the cards.

These post-card-coupons entitle the receiver to to call at your shop for a FREE FULL-SIZE TABLET OF PALMOLIVE SOAP provided that at the same time he or she purchases one tablet from you. This means that your customer gets two tablets for the price of one.

Each of the post-cards supplied to you is stamped ready for posting and your name and address is printed on the back so that the coupon is only good at your own establishment.

The post-card coupons will certainly be brought in to you in exchange for these extra FREE tablets.

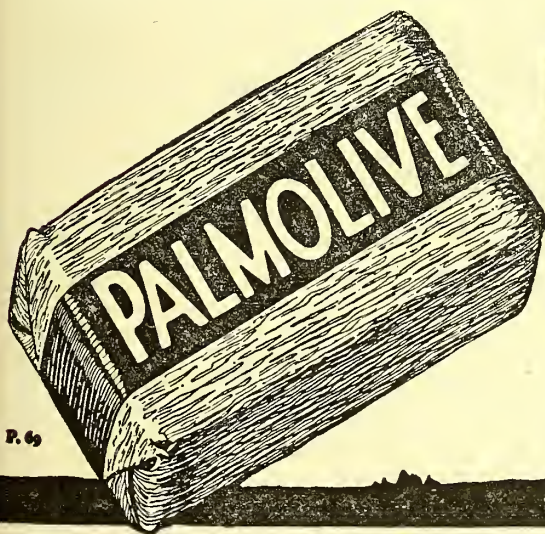
We will refund to you 7d. in cash for every coupon returned to you and sent on to us.

This means that you will get your full profit on both tablets supplied to each customer who brings in a coupon.

This also means that, if all cards are returned to you, the scheme will immediately sell half your original order of Palmolive Soap. At the same time it will increase your prestige with every customer who receives a coupon from you.

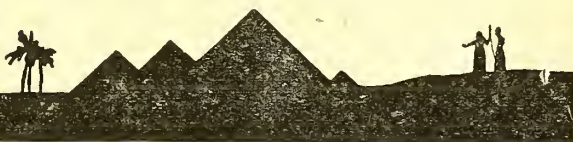
Note that this scheme applies only to your initial order and will not be repeated. Take advantage by ordering as much as you possibly can; it will pay you well.

Get a good start with Palmolive. It's a very paying line. Quality and advertising make it so. The soap sells at 7d.

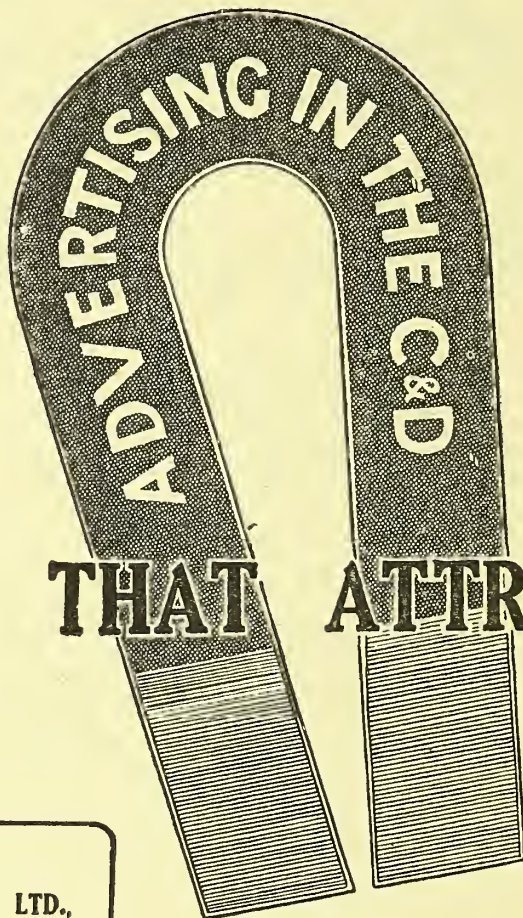


PALMOLIVE SOAP

*The Palmolive Company (of England) Ltd.,
21-23, Eagle Street, High Holborn, W.C.1.*



THE MAGNET



THAT ATTRACTS

LORIMER MARSHALL, LTD.,
write :

"In a recent issue of THE CHEMIST AND DRUGGIST our advertisement referred to the new List, and as a result we received applications from Johannesburg, Jaffa, Gold Coast, Belgrade, Canada, and all parts of England, Ireland and Wales."

□ □

AYRTON, SAUNDERS & CO.'S
recent advt. :

"Every issue of THE CHEMIST AND DRUGGIST has added new accounts to our Clientele. Last week's new accounts in respect of Ayrton's Ovals are indeed gratifying."

DRUG TRADE BUSINESS.



Introduce this laxative
to your customers and they
will ask for it regularly.

TRADE **'LAXAMEL'** MARK

Pleases the fastidious by its appetising appearance,
pleasant taste and gentle action. Brings reputa-
tion and profit because of its outstanding quality.

'LAXAMEL' contains approximately
80 per cent. of

TRADE **'PAROLEINE'** BRAND
MARK LIQUID PARAFFIN

A refined product of the utmost purity.
Colourless, tasteless, odourless.

'LAXAMEL,' in large glass jars, at 24/-
per dozen (subject)

'PAROLEINE,' in 4-ounce and 1-lb. bottles,
at 18/- and 54/- per dozen (subject)

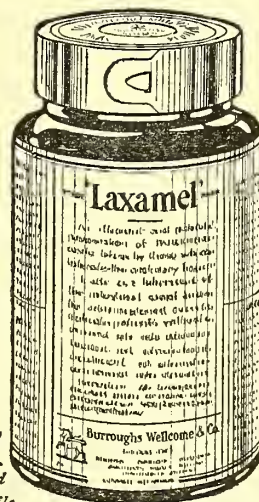


BURROUGHS WELLCOME & CO.
LONDON

G 1025

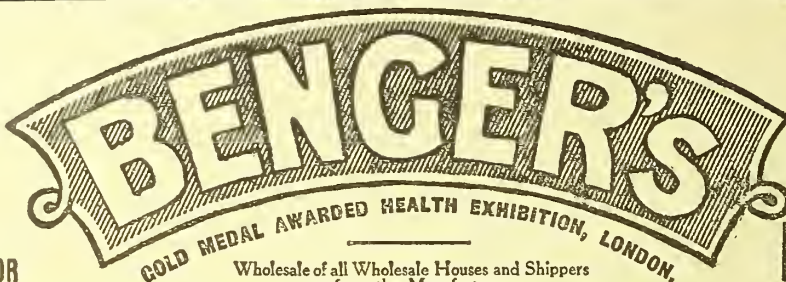
COPYRIGHT

Reduced
facsimile



The *Lancet*
describes it as
"Mr. Bengers's
admirable pre-
paration."

FOOD
FOR
INFANTS



The *British Medi-
cal Journal* says:
"Benger's Food
has by its excel-
lence established a
reputation of its
own."

INVALIDS
AND
THE **AGED.**

BENGER'S FOOD LTD., Otter Works, MANCHESTER. Eng.

Branch Offices at: 117 Pitt St., Sydney, Australia: 90 Beekman St., New York, U.S.A.
Canadian Agents: The National Drug and Chemical Co., Ltd., Montreal and Branches.
SHOWCARDS AND HANDBILLS ON APPLICATION.

DODGE & OLCOTT CO., 20 MARK LANE,
LONDON, E.C.3.

THE "D & O" BRAND
is the "Standard of Quality" for

OILS of BAY, CEDARWOOD, PATCHOULI, PEPPERMINT,
SASSAFRAS, ETC.

BALSAMS of Copaiba, Peru, Tolu.
TONKA BEANS, Angosturas.

Phone—
CITY 2468.

Telegrams—
"EGDARF, FEN, LONDON."

CHRISTY'S TOILET LANOLINE

compels customers to come again and again and proves the truth that *Quality* is the real builder of business. In its chaste "two blue" cartons it strikes the notes of superiority and elegance immediately it is seen. Those chemists who bought once will have no other because the trade and prestige winning attributes become so soon apparent.

No. 7 tube P.A.T.A. 7d.,
4/9 doz. No. 9 tube P.A.T.A.
1/-, 6/9 doz. No. 10 tube
1/4, 9/3 doz.

It will pay you to try a small parcel in your district.

**Its fine quality is proved by its
immense popularity.**

BETTER THAN A SHAMPOO! QUIN-QUENNA

is selling splendidly to-day and will do so even more so soon as the advertising gets into fuller swing. Are you showing the Window Bills, Cards, etc. conspicuously so as to get your quota of the trade?

If your stock is depleted or you have none, send for 6 dozen and *one dozen bonus* to open the season. The price is 4/- per dozen—P.A.T.A. 6d.—and your profit based on selling price is 43%—bear in mind.

**The advertising takes the effort
out of selling.**

**BUY THEM BOTH AT
THOS. CHRISTY & CO.
4/12 Old Swan Lane, London, E.C.4**



WEEKLY JOURNAL OF PHARMACY AND OF THE CHEMICAL AND DRUG TRADES

THE CHEMIST AND DRUGGIST is in circulation and reputation as a leading journal addressing the Chemical and Drug trades in the British Empire and other countries in the Old and New Worlds. It is the official organ of the Pharmaceutical Society of Ireland, the Chemists' and Druggists' Society of Ireland, and of other Chemists' Societies in the various Dominions.

SUBSCRIPTION RATE

TWENTY SHILLINGS a year payable in advance to any part of the world, including a copy of *The Chemist and Druggist* *Diary*. Subscriptions may begin with the first issue of any month. Single Copy, 9d., post free; *Diary*, 10s., post free. Postal orders and cheques should be crossed "Bank of Liverpool and Martins, Ltd." Prix de l'abonnement annuel: le journal une fois par semaine, et l'agenda une fois par an, 20s., franco.

TERMS FOR ADVERTISING may be obtained on application to the Publisher.

Head Office: 42 CANNON STREET, LONDON, E.C.4
Telegrams: "Chemicus, Cannon, London." Telephone: Central 3617 (3 lines).

Branch Offices: 49 County Buildings, 4 Cannon Street, Manchester (Telephone: City 52).
Melbourne and Sydney, Australia.

Contents

No. 17	Series 2257	Vol. 98	
	PAGE	PAGE	
Italian Centenary	581	Legal Reports	575
Belgian Tariff	600	Marriages	587
Business Changes	585	New Companies and	
Chemical Society	597	Company News	576
Colonial and Foreign		Observations and Re-	
News	575	fections	589
Coming Events	571	Personalities	587
Correspondence :		Pharmaceutical Botany	586
Letters	608	Pharmaceutical Society	
Legal Queries	610	of Great Britain :	
Miscellaneous Inquiries	610	Examination Results ..	596
Council Candidates	584	Branch meetings	596
Deaths	587	Photographic Notes	580
Editorial Articles :		Recent Patents	582
Testing Dispensing	590	Retrospect	610
Wage Situation	593	Reviews of Books	594
Dispensation of Medicines		Scottish News	573
Into France	593	South African Medicine	
English News	571	Tax	574
Industrial Spirit Per-		Trade-marks	602
mits	583	Trade Notes	588
Information Department	588	Trade Report	603
Insurance Act Dis-		Westminster Wisdom ..	577
ensing	579	Wills	587
Local News	573	Winter Session	598

Coming Events

This section is reserved for advance notices of meetings or other events. These should be received by Wednesday the week before the meetings, etc., occur.

Tuesday, May 1

Guild of Public Pharmacists, 50 Cannon Street, London, E.C.4, 7.30 p.m. for 8 p.m. Whist drive. Tickets (including refreshments), 3s. 6d. each (6s. double), from Mr. J. B. Elgar, London Hospital, E.1, or Mr. A. H. Jenkin, 64 Wray Crescent, N.4.

Wednesday, May 2

Society of Public Analysts, Burlington House, Piccadilly, London, W., at 8 p.m. Meeting.
Pharmaceutical Society of Great Britain, 16 Bloomsbury Square, London, W.C., at 11 a.m. Council meeting.

Thursday, May 3

The Chemical Society, Burlington House, Piccadilly, London, W., at 3 p.m. Six papers will be read.

Friday, May 4

Royal Institution of Great Britain, Albemarle Street, Piccadilly, London, W., at 9 p.m. Prof. F. Soddy, F.R.S., on "The Origins and Conception of Isotopes."

English and Welsh News

The Editor would be obliged if subscribers will send him marked copies of newspapers containing items of interest for insertion in this or other news sections.

"Dangerous" Drugs Licence Withdrawn

The Home Secretary announces that as a result of inquiries made in connection with the investigations into the illicit traffic in dangerous drugs which led to the recent conviction of H. M. F. Humphrey, he has decided to cancel the licences held under the Dangerous Drugs Act, 1920, by Whiffen & Sons, Ltd., Lombard Road, Battersea (also trading under the name of J. A. Wink & Co.), and they will not for the future be allowed to buy, manufacture, sell, or have any dealings in the drugs to which that Act applies.

British Pharmacopœia, 1914

The registrar of the General Medical Council informs us that the following corrections have been made in the sixth issue (January 1923) of the British Pharmacopœia, 1914. Some of them were inserted in the second issue (May 1915) and others in the third issue (May 1917), fourth issue (August 1919), and fifth issue (August 1920).

page	line		
22	5	for 156° to 157°	read 156° to 159°
23	2	for multiply the difference by 0.3217; the result will be	read Each millilitre of the difference corresponds to 0.03217 gramme of ether-soluble alkaloids. The product of the difference multiplied by 0.3217 gives
29	23	for 0.2 gramme	read 2.0 grammes
46	9		
48	13	after copper	insert arsenium,
106	13	for cresol	read cresol
107	6	for 1.045	read 1.040
137	20	for 90	read 70
143	22	before Extract	insert Dry
161	30	for 2	read 4
165	33	for 0.100	read 0.200
168	22	for 1.16 to 1.20	read 1.116 to 1.140
190	25	after Injection	insert is of one-half the strength of the corresponding preparation of the British Pharmacopœia, 1893. It
194	28	for N/10	read N/1
242	25	for not alkaline to litmus, and when	read alkaline to litmus, and when it is
256	24	for sodium	read potassium
262	5	for millilitres	read grammes
277	2	for millilitres	read grammes
277	17	for millilitres	read grammes
321	4	for Rhubarb Root	read Rhubarb
376	16	for Flower	read flower
380	16		
381	11	for 0.17	read 0.18
381	12	for 0.057	read 0.0057
390	28	for decimils	read decigrams
427	3	for 50	read 30
428	23	for 90	read 60
453	16	for 15 to 17	read 12 to 14
455	13	for 20	read 24
462	18	for soluble in water not more	read soluble in water not less
474	14	for 100	read 1000
476	10	omit in crystals	
476	13	for one hundred and sixty	read about seventy-five
524	6	for greater or less than	read which is beyond
524	6	after error,"	read in excess or defect,

Fairchild Scholarship and Prizes, 1923

Forms of entry for the next examination for the Fairchild scholarship and prizes are now ready, and may be obtained on application to Mr. Herbert Skinner, Secretary to the Committee of Trustees, c/o Fairchild Brothers & Foster, Albert Chambers, 64-65 Holborn Viaduct, London, E.C.1. The conditions for candidates in Great Britain and in Ireland are clearly explained.

Hull

A young Chinaman was recently fined £100 at the Hull Police Court for being in possession of 6 oz. of raw opium.

Lee & Silverwood, manufacturing chemists, Fountain Road, Hull, have a stand at the Annual Trades Exhibition which is being held this week at the City Hall.

Edward Sidney Kemp, who was stated to be an analytical chemist out of work and temporarily employed, was sentenced at the Hull Police Court, on April 24, to a month's imprisonment for drawing relief under false pretences.

Liverpool

Mr. Tomlinson, who acquired the Keir pharmacy in Everton Road, has added the Allan one in Breck Road.

Mr. and Mrs. Ferriday are taking a holiday at Church Stretton. Mr. Ferriday is a Salopian.

A. Lawrence & Co., Great Charlotte Street, have an orange-and-black window made up of sulphur tablets and cameras.

Mr. Frank Dobson (*C. & D.*, April 21, p. 556) has made a rapid recovery at the Royal Southern Hospital, and is now out and about.

Mr. J. L. Hirst sent a cheque for £109 4s. 8d., on April 24, representing the smoking concert contribution to the Pharmaceutical Society's Benevolent Fund.

Knight & Rich, chemists, Crosby, are dissolving partnership on April 30. The business will be carried on by Mr. D. Rich under the same style as hitherto.

Chester, where the new Dee suspension bridge forms an object of great interest, is likely to be the venue of the Liverpool Chemists' Association's picnic in June.

Mr. J. H. Tinnion is town traveller for F. Newbery & Son, Ltd., whose School Lane branch forms a prominent feature when seen from Church Street across the Woolworth site.

More genial weather has stimulated retail trade, and wholesalers have booked good home and export orders. Several re-engagements of members of staff are announced, together with the absorption of a few free lances.

A large number of chemists and their lady friends have accepted the invitation of Mr. and Mrs. W. H. Saunders and the directors of Ayrtton, Saunders & Co., Ltd., to inspect the new building and canteen, the first contingent visiting the premises on April 25. Many expressions of admiration of the up-to-date and hygienic arrangements were heard, coupled with thanks to the hosts and hostess, the heads of departments and cicerones. Mr. Harold Wyatt, Ph.C., Mr. Prosper Marden, Mr. John Jones, Mr. Lomax, and many other well-known members of the trade were met during the personally conducted tours.

Manchester

On the initiative of the Manchester Chamber of Commerce, a special organisation was appointed, at a meeting held on April 25, for the purpose of watching local interests in the forthcoming revision of railway rates.

The Manchester city coroner held an inquest recently on the body of Frederick L. Bentley, yarn agent, Levershulme, who died in the Royal Infirmary some weeks previously. Mr. H. Heap, M.Sc., F.I.C., the city analyst, stated in evidence that he had found 30 gr. of veronal in the organs submitted to him, and added that the maximum medicinal dose of it (gr. 10) was very close to the minimum poisonous dose (gr. 10.15). A verdict in accordance with the evidence was recorded.

Miscellaneous

WINDOW-SMASH.—A window in the Wellington, Shropshire, branch of Boots, Ltd., was broken, recently, by a runaway horse, which was so badly cut that it had to be destroyed.

WINE-LICENCE APPLICATION.—The wine off-licence granted to Mr. C. B. D. Mowson, chemist and druggist, Ashby, has been confirmed on condition that the premises are closed the whole day on Sundays.

POISON-LICENCE APPLICATION.—The North Cardiganshire Farmers' Co-operative Society, Ltd., Aberystwyth, has applied to the Cardiganshire County Council for a licence under Section 2 of the Poisons and Pharmacy Act, 1908.

APPEAL FOR QUININE.—We learn from the Friends' Emergency and War Victims' Relief Committee, 10 Fetter Lane, London, E.C.4, that urgent requests for quinine are being received from the Committee's unit in Russia, the Pugachev area being mentioned in particular as one in which malaria is rife. A four-page leaflet written by Dr. Melville Mackenzie (late of Liverpool) gives a vivid description of the conditions prevailing in that district, and the Committee, in sending it out, strongly appeal for assistance for those who need it.

DRUG-TRAFFIC CASES.—At Thames Police Court, on April 23, O. E. Rowing was sentenced to six months' hard labour, and Emilda Connelley to one month's hard labour, for being in unauthorised possession of a substance variously described as morphine hydrochloride and heroin (*C. & D.*, April 21, p. 537).—At Westminster Police Court, on April 25, Leslie Jago, a private soldier, and P. Savan, an Indian clerk, were respectively sentenced to six weeks' imprisonment and fined £10 (with £5 5s. costs) for being in possession of prohibited drugs.

WINDOW-DISPLAYS.—In the centre of a display of Pears' soap in the window of J. Johns & Son, chemists, Above Bar, Southampton, is a pair of scales with a bottle of mercury in one pan. Messrs. Johns are offering prizes for the nearest estimate of the number of tablets required to balance the mercury.—At a shopping week window-dressing competition, held at Ramsgate, the second prize in the class for "things-to-use" was awarded to Mr. T. H. Skitt, chemist and druggist. Boots, Ltd., were highly commended for their display.

EARLY CLOSING ASSOCIATION.—The annual meeting of the Early Closing Association was held in London on April 19. Complaint was made that panel doctors in some districts issued prescriptions so late that patients had hardly time to rush to the chemists before the closing hour. It was stated that deputations had gone to the Ministry of Health on the subject, and it was suggested that representations might be made to the British Medical Association and the Panel Doctors' Association. A resolution was carried in favour of the renewal of the Shops Act, 1920.

IN THE COURTS.—In the Mayor's and City of London Court, on April 19, Lawes' Chemical Manure Co., Ltd., obtained judgment for £7 16s. 6d., with costs, in respect of soap and disinfectant supplied to H. Spencer, Blackmoor, described as a hotel manager.—On April 23, Mr. Justice Roche, sitting in chambers, made an order for the release on his own recognisances of W. M. A. Morgan, Newport, Mon., who had been committed for trial on a charge of murder (*C. & D.*, April 14, p. 502). It is understood that a writ of *nolle prosequi* will be entered.—At Crewe, on April 24, Edgar P. Douston, describing himself as an American doctor, was sentenced to four months' imprisonment on a charge of theft, and was acquitted of having caused a merchant named Dryburgh to take "a stupefying and overpowering drug." Douston explained that he gave Mr. Dryburgh a dose of potassium bromide for the purpose of sobering him.

WAGES DISPUTES.—A meeting of the Joint Industrial Council for the chemical industry was held at the Ministry of Labour on April 19. It is understood that the employers propose to reduce the shift rate by a farthing an hour from May 10 and a further farthing from July 1. The employers have stated that if an agreement can be reached they will stabilise wages until the end of September. A ballot will probably be taken.—Strikes are reported on the part of sixty employees of Dakin Brothers, Ltd., wholesale druggists, Middlesex Street, London, E., and at the Pelaw drug depot of the Co-operative Wholesale Society, where 500 workers are involved.—A conference, called by the Ministry of Labour, was held at Birmingham on April 23, for the purpose of discussing wages in the glass-making industry. The employees had refused to accept a suggested reduction of 4s. a week, and notice had been issued by the employers.

Irish News

Pharmaceutical Society of Ireland

At a Registered Druggist Examination, held recently at Belfast, the following passed:—William Holmes Campbell, Belfast; Robert McQuitty, Belfast; William Elliott Stevenson, Belfast. Four candidates were rejected.

Free State Customs

The Irish Free State Customs Tariff is analysed by the Federation of British Industries in a letter sent out to members. The attention of manufacturers generally is specially directed to the following points:—

German Reparation Recovery Levy is *not* being collected in the Irish Free State.

Key Industry Duty is chargeable, but goods which fulfil Imperial Preference conditions are not liable.

Depreciated Currency Duty is chargeable.

Preferential rates of duty are granted in respect of the importation of:

(a) Tea, coffee, cocoa, dried fruits, refined sugar, syrup, glucose, molasses, and extracts from sugar, saccharin, manufactured tobacco, wines, spirits, cinematograph films.

(b) Clocks, watches, musical instruments, motor-cars, motor-cycles, and accessories, and component parts of all such goods.

There is no official form of invoice; declarations are made on the appropriate form of entry. Certificates of origin to substantiate a claim to preference are, for the present, being accepted in the form used for importation into Great Britain.

Drugs and Surgical Appliances Contracts

The following tenders have been accepted by Irish Boards of Guardians (except otherwise stated) for the supply of medicines and surgical appliances for the ensuing year at the discount indicated:—

		Drugs.	Surgical Appliances
Belfast	..	J. & J. Haslett, Ltd.	(—)
Larne	..	Fred Storey & Co., Ltd. (31½%).	Connor & Sons (26½%).
Londonderry	..	R. Sumner & Co., Ltd., Liverpool (35%).	Fred Storey & Co., Ltd. (28½%).
Lurgan	..	Fred Storey & Co., Ltd. (31½%).	Connor & Sons (28½%).
Magherafelt	..	Fred Storey & Co., Ltd.	Connor & Sons.
Newry	..	Fred Storey & Co., Ltd. (31½%).	Connor & Sons (28%).

The Newry Board of Guardians have decided to suggest to the Ministry of Home Affairs, Belfast, that in future all tenders of this character should be lodged at the same hour on the same date throughout Northern Ireland.

Brevities

Mr. J. S. Balmer, R.D., Bangor, has been appointed people's churchwarden at the Easter Vestry meeting in the Anglican Church, Bangor.

The Commissioner in charge of Kilkeel, County Down, Union invites tenders for supplying medicines to the workhouse and dispensaries of the Union.

Mr. Robert F. Blake, analyst, has reported to Londonderry Union that a sample of tinct. gentian. supplied from the city dispensary was much deficient in extractive matter.

Mr. A. C. McBride, M.P.S.I., the Medical Hall, Armagh, has carried out extensive alterations in his shop, which has been fitted with new mahogany and plate-glass wall and counter cases.

Miss Queenie McCay, daughter of Mr. Robert McCay, Ph.C., Castlederg, Co. Tyrone, was awarded first place in her class for solo pianoforte playing at the Belfast

Feis on April 18. In 1922 she won the silver cup at the Londonderry Feis.

Shields & Murnaghan, solicitors, Omagh, co. Tyrone, invite proposals for the purchase of the interest of Mr. B. Connolly, Ph.C., in the premises in Market Street, Omagh, where he has carried on business as a chemist for many years.

Death from poison taken while in a state of temporary insanity was the verdict at an inquest on Mrs. Ellen Ruane, a young married woman, of Ballinruane, Ahascragh, co. Galway, who died from drinking salts of lemon. —At an inquest on Mrs. Harriett Whitehead, 124 Drumcondra Road, Dublin, a verdict of death from misadventure was returned. Deceased had inadvertently taken aconite and belladonna.

At a recent meeting of the Poor Law Guardians of Midleton, Co. Cork Union, the medical officer of the Walshtown Dispensary pointed out that the dispensary had been deprived of a quarter's supply of medicines. Dr. J. F. Wash said that the last contractors for medicines to the Union were very unsatisfactory, and he had in some cases been kept waiting for medicines as long as five months. The clerk was directed to write to the contractors.

Scottish News

Brevities

Sparklets, Ltd., Upper Edmonton, London, N.18, have opened a depot for Scotland at 67 Great Clyde Street, Glasgow, and appointed Mr. T. Gibson as their Scottish representative.

An address on "Standardisation: Chemical, Physiological and Biological," was delivered by Dr. J. Stanley White (Parke, Davis & Co.) to the members of Dundee and East of Scotland branch of the Scottish Pharmaceutical Federation on April 24.

Edinburgh Chemists' Golf Club recently held the second competition of the season over Broomilknowe golf course, with the following results: (1) Mr. W. J. Rosie, 65; (2) Mr. M. Scott, 69; (3) Mr. W. S. Spence, 71; (4) Mr. K. J. C. McLennan, Mr. A. E. Kelly (equal), 75. The next competition will take place at Lothianburn on May 2.

Miss E. Diack, chemist and druggist, formerly assistant with Mr. W. Watt, chemist and druggist, Chattan Place, Aberdeen, has opened a pharmacy at 2 Baker Street. Several ladies are employed as assistants, but Miss Diack, who passed the Qualifying examination last year, has the distinction of being the first lady pharmacist to commence business on her own account in the Granite City.

Glasgow

There was a large attendance of pharmacists and students at a meeting in the Royal Technical College, on April 18, when a lecture on "Standardisation" was delivered by Dr. Stanley F. White (Parke, Davis & Co.), who dealt with his subject in detail, showing by means of lantern slides the methods adopted to standardise such preparations as digitalis, strophanthus and ergot. The lecturer also spoke on vaccines and sera, the ductless gland preparations and vitamins. On the motion of Mr. Todd, votes of thanks were accorded at the close of the lecture to Dr. White and the chairman, Mr. H. P. Arthur.

The angling section of Glasgow Pharmacy Club held the first outing of the season at Loch Ard, Aberfoyle, on April 12, where they were conveyed by motors kindly supplied by Messrs. MacKinnon, Logan, Ferguson, and Gowan. Sixteen members participated in the day's enjoyment. The weather was beautiful, but just a little cold for the fish to be rising freely. The total catch amounted to sixty-five trout, weighing 22 lb. 5 oz., and the competition resulted as follows: (1) Mr. W. J. Moffat, 14 trout, 4 lb. 12 oz.; (2) Mr. G. L. Michie, 10 trout, 3 lb. 3 oz.; (3) Mr. T. Baird, 8 trout, 2 lb. 4 oz. The heaviest fish was obtained by Mr. D. Black, and weighed 1 lb. 4 oz.

South African Patent Medicine Tax

The Cape Minister of Finance introduced the Budget in the House of Assembly, on March 28, when he proposed an excise tax on patent medicines, perfumery and toilet articles. In the course of his speech he said:

We come to another thing, and that is our old friend the patent medicine. (Laughter and cheers.) I do not see why we should not have made this a source of revenue for some time past, they are pure luxuries. (Loud laughter.) They are innocuous, and I think we may as well assist our revenue by getting something from this source. We propose, therefore, to impose substantially the same rates as were imposed in the Old Cape Act of 1903, and as amended in 1909, which existed in the Act of Union, but these rates were abandoned by the flowing revenues which came in from the north. We propose to impose the same state of rates as were imposed there, and to impose a duty on patent or proprietary medicines and on perfumery. (Laughter, and hear, hear.) Hon. members, I am sure you will be glad to hear that powder and tooth paste will be excluded. (Laughter.)

I remember when I introduced the last Bill the storm of indignant protest about the Hoffman Droppels. We were assured that it went to the very marrow and life of the people, and that there should be no tax which interfered with their national life. (Laughter.) On analysis it proved that 80 per cent. of the contents were alcoholic, and although we excluded the patent medicine from tax, we dealt with the alcohol. These two will give us £100,000, and we are making a start at once, and we hope to get that amount in this year.

SCALE OF THE LEVY

The following is the proposed scale of duties imposing the excise duty:—

(1) On patent or proprietary medicines, sold, or exposed for sale, by retail, when the retail selling price of the contents of each immediately containing bottle, packet, box or other container, as the case may be, exclusive of the amount of the excise duty, does not exceed:—

Price s. d.	Excise duty £ s. d.	Price s. d.	Excise duty £ s. d.
1 6	0 0 2	10 0	0 1 6
2 0	0 0 3	20 0	0 4 6
2 6	0 0 4	50 0	0 10 0
4 0	0 0 6	over	
6 0	0 1 0	50 0	1 0 0

SOME DEFINITIONS

A "patent or proprietary medicine" shall mean any medicine: (a) Protected in the Union under current Letters Patent; or (b) prepared, or purporting, or professed to have been prepared from a secret formula; or (c) prepared, or purporting, or professed to have been prepared by some secret or occult art, whether or not the formula is, or is not professed to be secret; or (d) sold under a name or trade-mark registered specially in regard thereto; or (e) sold under any description which, by reason of the use of the possessive case, or otherwise, implies, or indicates, proprietary rights; or (f) prepared for sale as an article of commerce, and not specially prepared, or supplied, in accordance with the prescription of a medical practitioner in respect of the purchaser, or a member of his family or other person in his charge.

"Medicine" shall mean any drug or other substance (other than vaccines, sera, toxins and substances of a like nature, including the so-called Dutch medicines) used, or intended to be used, whether internally, externally or by injection, for the treatment or prevention of disease in man.

THE PERFUMERY SCALE

(2) Perfumery, including toilet preparations (spirituous or non-spirituous), viz., powders, washes, pomatums, pastes, hair oils and all other perfumed preparations used for the hair, mouth or skin, but not including tooth pastes, tooth powders, tooth washes and toilet soaps and soap powders, sold, or exposed for sale by retail, when

the retail selling price of the contents of each immediately containing bottle, packet, box or other container, as the case may be, exclusive of the amount of the excise duty, does not exceed:—

Price s. d.	Excise duty £ s. d.	Price s. d.	Excise duty £ s. d.
1 6	0 0 2	10 0	0 1 6
2 0	0 0 3	20 0	0 2 6
2 6	0 0 4	30 0	0 4 6
4 0	0 0 6	50 0	0 10 0
6 0	0 1 0	over	
		50 0	1 0 0

These duties, which will be collected by means of stamps, are leviable and accrue on all stocks in the hands of dealers. Postmasters throughout the Union have been supplied with stamps of the required values, which are to be affixed to such articles when sold or exposed for sale by retail.

Chemists' Protest

At a special meeting of the Cape Peninsula Retail Chemists' Association, held in Cape Town on April 6, the following resolution was adopted:—

That the Cape Peninsula Retail Chemists' Association appoint a deputation to urge upon the Minister of Finance the necessity of modifying the patent medicine tax in such manner as to remove from the retailer the onus of collecting such tax, and of removing such taxation from articles and drugs which are not of a patent or proprietary nature, but are nevertheless included in Sections (e) and (f) of the Excise Department Schedule.

WOODWARD'S GRIPE WATER

The opinions of chemists generally were summed up by the proprietor of one leading pharmacy, who to a "Cape Argus" representative said:—"These new proposals mean that chemists will have to bear 90 per cent. of the new duties imposed. As it is, patent medicines imported into this country pay a duty of 25 per cent. Now this extra stamp duty means additional taxation. It is all very well for Mr. Burton to say that patent medicines are luxuries, but I have never yet met a man who took patent medicines for the fun of the thing. Many of the medicines are essentials. Take Woodward's Gripe Water, for example. The face value in England is 1s. 3d. per bottle. With the duty here we can sell it at 3s. 6d. per bottle, but with the extra stamp duty of 6d. it will have to be sold at 4s. against 1s. 3d. in England. And chemists are not making a legitimate profit on that article, for it is one of the cut lines at the price at which it is being sold, and it has been reduced to the lowest possible limit."

COLONIAL INDUSTRIES

"Then, again, this stamp duty is going to be a severe setback to Colonial industries. For instance, we have been pushing a certain line which, by persistence and advertising, we secured a market for. But with this stamp duty at 1s. 3d. per large bottle it will make the sale almost prohibitive. Unless something can be done the tendency of the duty will be to drive it out of the market. A further objection, so far as chemists are affected, is that it is going to cost the Government thousands of pounds to administer the stamp tax in the shape of inspectors who will have to go round the country visiting the various shops. Mr. Burton expects a considerable tax, but he will be disappointed. His net revenue will be very small. Take, for example, the whole of the United Kingdom, with its enormous population as compared with the Union of South Africa. The patent medicine stamp duty there, with a tax a little less than ours, only realises about £300,000. What chance, then, has Mr. Burton of realising a net revenue to the extent he is budgeting for?"

"It would have been better and much fairer to have increased the Customs duties on patent medicines. That would have helped local industries, and it would not have increased the cost of administration. All chemists would have preferred an additional duty to the stamp duty. It would have been fairer for all, for then no one could have escaped. These, generally, are the views chemists hold in regard to the new proposals."

Colonial and Foreign News

FINNISH PRESCRIPTION STATISTICS.—The official statistics for 1922 have now been published of the total number of prescriptions made up in each of the 357 pharmacies in Finland. Curiously enough two pharmacies in Tammerfors head the list with a total of 112,040 and 111,933 prescriptions respectively (1921: 90,693 and 69,458), a pharmacy in Helsingfors, the capital, coming third with 84,669 (1921: 64,638). The pharmacy in Nurmo dispensed 404 prescriptions, the lowest figure for any completely equipped business, while actually the smallest number, 91 prescriptions, is reported by the branch pharmacy in Karvia.

EGYPTIAN CUSTOMS REGULATIONS.—The Egyptian Customs authorities have published a notice to the effect that in order to insure rapid clearance of imported preparations containing alcohol, such as medicinal preparations, perfumes, etc., the invoices should contain the following information:—If the preparations are imported in bulk: Gross weight, weight of the actual container, net weight of contents and capacity of the container, and the percentage of alcohol present in the preparation. In the case of alcoholic preparations imported in bottles: The content of each bottle and the percentage of alcohol contained in the preparation. If these particulars are not stated, the customs authorities will analyse each consignment, declining all responsibility for the loss of time thereby incurred.

NEGOTIATIONS HAVE TAKEN PLACE between the Japanese Ambassador in Berlin and Professors Hahn, Haber, Neuberg and Thoms concerning the administration of the gift recently made by the well-known Japanese manufacturer of pharmaceutical products, Hajimi Hoshi. Mr. Hoshi has promised a monthly contribution of 2,000 yen, for a period of three years, in order to enable the scientific research work carried out by the Emperor William Society to be continued. In addition to this donation, Mr. Hoshi presented the sum of 100,000 yen to the chemical institute of Professors Haber and Neuberg, in Dahlem, some time ago, for the purpose of furthering the progress of chemistry in Germany. It is stated that now a further donation of 40,000,000 marks has been made, to be utilised in the general interests of scientific progress in Germany.

SIAMESE DRUGS LAW.—A Siamese law has been passed entitled the "Harmful Habit Forming Drugs Law." This law applies to: (1) Medicinal opium; (2) all the alkaloids of opium, together with their chemical derivations and all their salts; (3) coca leaves with all its alkaloids, their chemical derivations and all their salts; (4) all the above, whether in a pure state or mixed with any other substance, whether in solution, in pill or in any other form or preparation; (5) Any other drug or preparation which, in the opinion of the Director-General with the approval of the Minister, is productive, if improperly used, of harmful effects substantially of the same character or nature, or analogous to that produced by the drugs mentioned in the foregoing sections of this article, and which the Minister will cause to be added to the above schedule and notified by publication in the Government Gazette. Importation of the foregoing is restricted to Government importations and importations by licensed persons.

Legal Reports

Unstamped Insurance Cards.—At Old Street Police Court, London, on April 19, William Desmond Noble, trading as E. D. Noble, 64 Southchurch Road, Southend, was summoned for failing to pay contributions under the National Health and Unemployment Insurance Acts in respect of Herbert John Curtis and John Ackland Rambaut. The defendant pleaded that the men were managers and paid their own wages; it was their duty to stamp the cards, and he had no idea it was not being done. Mr. Ashworth, prosecuting for the Ministry of Health, described defendant as a chemist, and said that the summonses were in respect of a shop at 163 Green Street, Bethnal Green, E., where he had employed Curtis

from August 1921 to December 1922 at £3 a week, and Rambaut from December 1922 to February 1923 at £3 5s. a week. It was true, as the defendant had said, that they paid themselves out of the takings, but the defendant took no steps to see that the accounts showed that the cards were stamped. Herbert John Curtis, giving evidence, said he rendered the last accounts to Mr. Noble on December 11 or 18, 1922. The magistrate observed that what Mr. Noble said was that witness sent no accounts. The witness said that was not true. The Magistrate: Did you tell the authorities you had not a stamp on your card?—Yes. Why? Was it to get Mr. Noble into trouble?—No. Then why?—Because I was out of work and wanted it. Mr. Ashworth said the contributions due were:—Curtis, health 30s., unemployment £2 17s.; and Rambaut, health 7s. 6d., unemployment 14s. 3d. The magistrate made an order for payment of these amounts, with £4 4s. costs and £2 penalties.

Dispensing Tested.—At North London Police Court, on April 20, Lewis & Burrows, Ltd., chemists, appeared by their solicitor, Mr. Kirby, in answer to an adjourned summons alleging that on January 17 they sold at 274 Seven Sisters Road, N., a mixture deficient in potassium bromide to the extent of 27.1 per cent. and containing spiritus ammoniæ aromaticus to the extent of 13.3 per cent. in excess (*C. & D.*, March 24, p. 395). Mr. Brian Bramall appeared for the Islington Borough Council in support of the summons. The suggestion at the first hearing was that the discrepancy in the results of the analyses for the prosecution and the defence might be accounted for by the mixture not being properly shaken before being divided. The Government chemist, it was now reported, had substantially confirmed the analysis made by Dr. Teed, public analyst for Islington. Mr. Kirby said he should plead "Guilty," but he wished to draw the attention of the magistrate to a tabulated statement giving the results of the three analyses. The middle one, which was made by the defendants, had caused the adjournment in this case. All three were made by competent people. The prescription was made up by a registered chemist, and he (Mr. Kirby) wished to point out that although there was a deficiency and an excess the errors were in the less important drugs. The most potent drug mentioned in the prescription was nuxvomica, and the quantity was correct. With regard to the other drugs, in one case there was 3 gr. too little and in the other 2½ gr. too much, and the excess was in the most expensive drug. The defendant company had a number of shops and employed competent assistants. The magistrate: Was the prescription made up by a male or female dispenser? Mr. Kirby: By a man who has now left the service of the company. The magistrate remarked that for reasons best known to the authorities a similar form of prescription had been adopted in several cases. It might have been argued that the dispenser, knowing that he was dealing with a simple form of prescription, was likely to be less accurate than he would be in dealing with a complicated prescription. It was not suggested that there was calculated negligence, but his worship thought that dispensers were likely to take less care when dealing with matters which they knew were of no great importance. Still, there was the prescription, and the purchaser must have what was asked for. The public paid generously, particularly in some shops, for skilled service and accuracy, but, added the magistrate, "we don't always get it." It was his duty to mark his sense of this matter by imposing a fairly substantial fine. The defendant company would have to pay £15, with £4 4s. costs.—At the Hampstead Police Court, on April 25, three summonses were brought by the Hampstead Borough Council against chemists for selling drugs alleged to be not composed of the ingredients demanded by the purchaser. The defendants were Parke's Drug Stores, Ltd., Mr. Tom Bellamy, 100 Cricklewood Broadway, N.W., and Mr. Robert James Vincent Armatage, 6 Cricklewood Broadway. The sale of the drugs was admitted, but the solicitor for the defence applied for an adjournment in order that samples might be sent to Somerset House for an independent analysis, as provided for in the statute. The cases were thereupon adjourned for five weeks.

New Companies and Company News

P.C. means Private Company and R.O. Registered Office

J. A. CLAYTON (CHEMISTS), LTD. (P.C.).—Capital, £1,000. Objects: To take over the drug business of J. A. Clayton, carried on at 52 Catherine Street, Leicester. The first directors are J. A. Clayton, Mrs. E. A. Clayton, and W. J. Clayton. R.O.: 52 Catherine Street, Leicester.

L. G. OGDEN, LTD. (P.C.).—Capital, £500. Objects: To acquire the drug businesses of L. G. Ogden, at 572 Rochdale Road, Walsden, Todmorden, and at 305 Padiham Road, Burnley. The first directors are L. G. and Mrs. A. E. Ogden. R.O.: 572 Rochdale Road, Walsden, Todmorden.

FRANK POYSER, LTD. (P.C.).—Capital, £200. Objects: To acquire the business of a drug store and photographic dealer now carried on by F. Poyser at 41 Wellgate, Rotherham, as the "Wellgate Pharmacy." The permanent directors are F. Poyser and Mrs. N. M. Poyser. R.O.: 41 Wellgate, Rotherham.

THAMES SOAP CO., LTD. (P.C.).—Capital, £1,000. Objects: To carry on the business of soap-makers, perfumers, seed crushers, varnish-makers, manufacturers of and dealers in tallow, artificial tallow, oil, glycerine, chemicals, etc. Solicitor, H. G. Rushton, Lever House, Blackfriars, London, E.C.

J. W. FELTWELL, LTD. (P.C.).—Capital, £2,000. Objects: To acquire the business of a chemist and druggist, formerly carried on by the late J. W. Feltwell at 91 Hammersmith Road, W., as "J. W. Feltwell." The permanent directors are J. G. Feltwell, A. Lewis and Mrs. Julia Feltwell. R.O.: 91 Hammersmith Road, London, W.

MERCER & REES, LTD. (P.C.).—Capital, £1,200. Objects: To adopt an agreement with F. S. Mercer for the purchase of his business and assets and to carry on the business of wholesale and retail chemists and druggists, etc. The directors are F. S. Mercer, S. Swain and J. Coutts. Solicitors, Harold Elwell & Co., 65 Coleman Street, London, E.C.2.

PREMIER SOAP CO., LTD. (P.C.).—Capital, £100. Objects: To carry on the business of soap manufacturers, pharmaceutical, manufacturing and general chemists, druggists, manufacturers of and dealers in all kinds of toilet requisites, boxes and cases, collectors of flowers and perfume-producing vegetation, etc. The first directors are J. Caley and F. Till. R.O.: Ann Watson Street, Stoneferry, Hull.

WILLIAM SHAKESPEAR, LTD. (P.C.).—Capital, £100. Objects: To acquire the business of a chemist and pharmacist now carried on by W. Shakespear at 403 Bordesley Green, Birmingham, as "William Shakespear," and to carry on the business of manufacturers of and dealers in proprietary medicines, and articles, toilet articles and packed goods of all kinds, etc. The permanent directors are W. Shakespear, Ph.C., and W. F. Shakespear. R.O.: 403 Bordesley Green, Birmingham.

LAYCOCKS (ASHTON-UNDER-LYNE), LTD. (P.C.).—Capital, £5,000. Objects: To acquire certain freehold land in William Street, Ashton-under-Lyne, with the buildings thereon recently occupied by W. Torkington, together with the plant, machinery, fixtures and fittings therein, and to carry on the business of lard compound manufacturers, chemists, drysalers, druggists, dentists and opticians, etc. The life directors are A. Harrison and W. Laycock. R.O.: William Street, Ashton-under-Lyne.

SUMTACHE CO., LTD. (P.C.).—Capital, £2,750. Objects: to adopt an agreement with A. Couch and P. A. Stinson, and to carry on the business of proprietors and exploiters of "Sumtache" and other chemical compounds, and all or any other invention for or connected with the cleaning, preservation and treatment of clothes, furs, skins and materials of all kinds, etc. The directors are: A. Couch, P. A. Stinson, T. Seaton, and H. R. Finn. R.O.: 2 Cross Street, Dagnal Street, St. Albans.

OPHTHA CO., LTD. (P.C.).—Capital, £100. Objects: To acquire the business carried on by H. Gordon at 172 Old Christchurch Road, Bournemouth, as manufacturer and vendor of a certain toilet preparation known as "Ophtha Tonic Eye Lotion," and also the benefit of registered trade-mark No. 425,440, used in connection therewith, and to carry on the business of wholesale and retail chemists and druggists, manufacturers and vendors of cosmetic and toilet preparations, etc. The first directors are H. Gordon and W. Wright. R.O.: 172 Old Christchurch Road, Bournemouth.

BURCHELLS (CHEMISTS), LTD.—A general meeting will be held at 14 Princess Street, Wolverhampton, on May 2, at 3 o'clock.

BENGER'S FOOD, LTD., announce a final dividend of 1s 3d per share, tax free, making 10 per cent., carrying forward £7,686.

SPRATT'S PATENT, LTD.—Mr. Sidney Thomas Lethbridge has been appointed chairman and managing director of Spratt's Patent, Ltd., in succession to the late Mr. Stephen Wingrove.

COMPANIES WHICH MAY BE WOUND UP.—The names of the undermentioned companies will, unless cause is shown to the contrary, be struck off the register and the companies dissolved three months after March 13:—Anglo-Colonial Dyes, Ltd.; Astra Chemical Co., Ltd.; Burgundy Powder and Chemicals, Ltd.; Elastic Truss Co., Ltd.; English Drug and Chemical Works, Ltd.; Grip Tablet Co., Ltd.; Lawson's Mineral Waters, Ltd.; Yate Chemical Works, Ltd.

HENRY LAMPLOUGH, LTD.—At the Mart, London, on April 24, the shop and office premises, warehouse and Pyretic Saline of Henry Lamplough, Ltd., were offered for sale. The use of the recipe, "goodwill, trade-marks and rights" of Lamplough's Pyretic Saline was purchased for £2,500, following an opening offer of £1,000. The freehold of the headquarters of the business in Holborn was reserved by the auctioneers after bidding had ceased at £11,450, and the leasehold warehouse in Blackfriars at £1,850. The respective reserves were £13,000 and £2,300.

APOLLINARIS & JOHANNIS, LTD.—An extraordinary general meeting was held on April 20 at the Holborn Restaurant, for the purpose of confirming as special resolutions the resolutions passed on March 26 last in connection with the reconstruction of the company. The chairman, Mr. Alfred R. Holland, expressed his gratification at the results of the poll, which showed £1,827,606 in favour of the scheme and £7,320 against it. In other words, over 99 per cent. of the voting had been in favour of the scheme and less than ½ per cent. against it. The scheme was unanimously agreed to and confirmed. The chairman mentioned that, with a capital now standing at a more reasonable figure in proportion to the anticipated earning capacity of the company, a more hopeful future might be looked for.

CORNISH ARSENIC.—At the annual general meeting of South Crofty, Ltd., held at Winchester House, Old Broad Street, London, E.C., on April 19, the chairman, Mr. Francis Allen, J.P., in the course of his speech moving the adoption of the report, said: "In addition to the returns from tin, we are enjoying very high prices for arsenic. It is common knowledge that arsenic at the present time is realising tremendous prices as compared with pre-war prices. I have been asked on many occasions for an explanation of this. I think probably the explanation is that in America they have started using arsenical compounds for spraying the cotton plantations, which they find to be the only effective preventive for certain insect pests which they have in that country. Were we in possession of large quantities of arsenic to-day we should be doing a very large trade with America, and at high prices. We have in the past been very big producers of arsenic—some 500 or 600 tons a year—and we shall use every effort to get back to that position. We also handle a good deal of arsenic from other producers which we purchase in the form of soot, which we refine and sell."

The sale of our "Feathers" brand has become almost world-wide in its reputation, and it is handled extremely well by our agents in Glasgow, Leisler, Bock & Co. It is a pleasure to be able to say that we have never had a bad debt or a complaint of the quality of the goods we send out."

BOOTS, LTD.—The report of Liggett's International for 1922 is now available and is published in the "Financial Times." As was the case in 1921, it includes a combined balance-sheet of the Boots Pure Drug Co. and its associated undertakings. The Boot companies themselves balance their books, not at December 31, but at March 31, and the particulars given by the American proprietary concern therefore afford some indication of what the accounts now in preparation and due to be published next month will disclose. We reproduce below the Boot combined balance-sheet, together with the figures of the previous year for the purpose of comparison:—

	1922	1921
ASSETS—		
Cash	£274,400	£646,500
Government bonds ..	248,300	
Accounts receivable ..	54,800	68,600
Merchandise inventory ..	1,800,700	2,069,800
Total quick assets ..	2,378,200	2,784,900
Investments	12,000	11,300
Real estate and buildings owned	1,561,800	1,497,600
Buildings and improvements to leaseholds ..	1,227,100	1,050,100
Machinery, furniture and fixtures	1,500,800	1,429,700
	£6,679,900	£6,773,600
LIABILITIES—		
Current a/cs payable ..	£720,900	£744,400
Total quick liabilities ..	720,900	744,400
Accrued and deferred items (including provision for taxes) ..	102,300	405,900
Bonds and Mortgages ..	—	20,000
Res. for depr. and bad debts	1,052,600	943,800
Prof. capital	3,244,800	3,248,000
Ord. capital	100,000	100,000
Surplus	1,459,300	1,311,500
	£6,679,900	£6,773,600

The figures are in dollars, the pound sterling being taken as four dollars. In an editorial comment on the subject the "Financial Times" states that the results for 1922 are not quite so good as those for the preceding year, but having regard to the general state of trade they must be considered as quite satisfactory, especially as they afford evidence that the directors have obviously aimed at strengthening the financial position instead of exhibiting undue haste in resuming the payment of dividends on the common stock. The President says that the Boot companies have continued to show the excellent results predicted, and that, notwithstanding some reduction in the volume of turnover, due to industrial depression, the net profits show an improvement of approximately 16 per cent. This obviously applies to the calendar year, and not to the Boot fiscal year, which closes March 31. It is added that there has been little change in the Canadian situation. In that case it is quite clear that nothing can have been received on the Dominion investment, and, indeed, not so very long ago the President stated it was not yet likely to make any return. The properties, however, are in good condition, there is no adverse profit balance, and it is expected that business in Canada will be back to normal before very long. All the evidence available, therefore, points to the fact that Liggett's International has derived an increased revenue from its British holding. In 1921 it was computed that Liggett's drew about £280,000 from this source, and it would not be surprising if the amount drawn during the past year was much nearer £300,000, representing about 12 per cent. on the purchase price. But though there may have been the temptation for Liggett's to secure as much as possible from its English interests, in view of the decline in revenue from other quarters, it is also plain that this has not been yielded to on any unreasonable extent, since the accumulated surplus of the Boot companies has risen from £1,311,500 to £1,459,300, an increase of £147,800.

Westminster Wisdom

By the "C. and D." Parliamentary Representative

DANGEROUS DRUGS BILL

The second reading of the Dangerous Drugs and Poisons (Amendment) Bill was taken in the House of Lords on April 26.

MEDICAL HERBALISTS

A bill was presented in the House of Commons by Lieut.-Commander Kennedy, on April 23, "to provide for the registration of medical herbalists."

NATIONAL HEALTH INSURANCE

As a result of discussion with the Insurance Consultative Council, it is not now contemplated that any general rearrangement of the medical benefit system will be made, said the Minister of Health in the House of Commons on April 18. Certain modifications of the terms of services have been recommended by the Council, but these will not involve any substantial change in the present system.

VALUE OF DISINFECTANTS

The Minister of Health, in the House of Commons on April 18, stated that he had no evidence to show that disinfectants totally devoid of bactericidal action are sold to the public, but he is aware that, judged by certain tests, the disinfectants which are on sale may differ considerably in their bactericidal power. As at present advised, he did not propose to adopt the tests required by the Army and Navy and other Government Departments. Advice as to the choice of disinfectants for particular purposes can generally be obtained from the health officers of local authorities.

OPIUM REVENUE

In reply to a question asked in the House of Commons on April 19 as to the proportion of revenue derived from opium in certain of the Colonies, Mr. Ormsby-Gore, the Under-Secretary for the Colonies, gave the following answer: For the year 1921, which is the latest year for which complete figures are available, the net revenues derived directly or indirectly from opium by the Governments of the Straits Settlement, the Federated Malay States, Brunei and North Borneo formed approximately 37, 16.7, 16 and 12.3 per cent. respectively of the total revenues collected by those Governments. In Sarawak the opium and certain other monopolies are leased to a syndicate controlled by the Government for an inclusive rent. He was unable to state definitely what proportion of this rent is in respect of the opium monopoly, but inquiry will be made of the Government of Sarawak.

MEDICAL SERVICE

Sir K. Wood asked the Minister of Health, on April 23, whether his attention has been drawn to a communication recently issued by the British Medical Association to doctors on the panel lists, entitled "Organisation of Insurance Practitioners in consideration of, and in the event of, a refusal of the terms offered by the Government for National Health Insurance Work," which contemplates a refusal in certain contingencies to carry on the panel service; and whether he will state what action he proposes to take in such a contingency?

The Minister of Health (Mr. Neville Chamberlain) replied that the communication is understood to be a confidential circular issued only to insurance practitioners, and he had no official knowledge of it. Negotiations with representatives of insurance practitioners with a view to the revision of their terms of service have now begun, and the prospects of a successful issue would not be enhanced by any statement at this stage as to the steps which the Government might find it necessary to take in a contingency which he had every reason to hope will not arise.

WIRELESS LICENCES COMMITTEE

The Postmaster-General announced on April 24 that the terms of the Committee which he has set up are to consider:—(a) Broadcasting in all its aspects. (b) The

contracts and licences which have been or may be granted.

(c) The action which should be taken upon the determination of the existing licence of the Broadcasting Company. (d) Uses to which broadcasting may be put. (e) The restrictions which may need to be placed upon its user or development. The members of the Committee are:—Major-General Sir Frederick Sykes, M.P. (*Chairman*); Major the Hon. J. J. Astor, M.P.; Mr. F. J. Brown, C.B., C.B.E., Assistant Secretary, General Post Office; Sir Henry Bunbury, K.C.B., Comptroller and Accountant-General, General Post Office; Viscount Burnham, C.H., chairman, Newspaper Proprietors' Association; W. H. Eccles, Esq., F.R.S., President, Radio Society of Great Britain; Sir Henry Norman, Bt., M.P.; J. C. W. Reith, Esq., general manager, British Broadcasting Company; Field-Marshal Sir William Robertson, Bt., G.C.B., G.C.M.G., K.C.V.O., D.S.O.; Charles Trevelyan, Esq., M.P.

TABLE WATER DUTY.

The House of Commons' resolution dealing with the reduction of the duty on sweetened or fermented waters from fourpence per gallon to twopence per gallon was read a second time on April 23. An amendment was proposed by Mr. W. Graham to reduce the duty to one penny. It was pointed out that the revenue obtained is a declining one, and that the tax had had the effect of reducing the quantity of mineral waters produced from a hundred million gallons in 1914 to thirty-three millions last year. During that time unemployment in the industry had increased very largely, and about one-third of the workers who were formerly engaged in it are now out of occupation, and only about one-third of the plant formerly in use is being employed at the present time. The consumption is declining because of the high prices at which it is necessary to sell the commodities, largely because of the tax. He pointed out that the raw materials of the industry, such as sugar, are heavily taxed. In regard to the complaint that the reduction in the tax could not be passed on to the consumer, the amount is so small it works out at one-sixteenth of a penny upon a five-ounce bottle, or a farthing on a twenty-ounce bottle. If the duty could be abolished the manufacturers would be ready to make the concession of 4d.

Major Boyd-Carpenter, on behalf of the Chancellor of the Exchequer, promised to consider the points involved, and Mr. Graham's amendment was withdrawn.

BROADCASTING LICENCES

On the motion for the adjournment of the House of Commons on April 19, Lieut.-Colonel Moore-Brabazon raised the question of wireless broadcasting. He said there are two forms of broadcasting licences issued to-day. One is to the experimenter, and the other to what is called the broadcast licensee. He is a man who is not meant to know anything about wireless, but is one who buys an instrument and turns it on to receive the broadcasting from London. The other man, the experimenter, is given a licence to use whatever apparatus he likes, the chief advantage of which is the employment of what is called reaction. This may be described as a sort of "boosting" of a very feeble incoming current. It should be understood that if reaction is employed by someone who does not understand his apparatus the receiving instrument becomes a generating station, and the moment it does so it upsets everybody else in the locality who is trying to listen in. The Postmaster-General is faced with this position—that there are many people in the country who can make and who do make their own sets. It is a very easy thing to make. A crystal and a hairpin are about all you require. Owing to the regulations, the people who have made these sets have been forced into the position of breaking the law, because, first of all, they are not allowed to get an experimenter's licence, nor are they doing right in using the receiving set they have themselves made, in that it does not conform to the broadcasting standard. Consequently the position is that many people who do not want to break the law have been forced to do so. The Postmaster-General and the Broadcasting Company are having a dispute as to what

shall be done with these people, and he saw in the papers that the Postmaster-General threatens to issue to everybody who makes his own crystal set an experimenter's licence. He hoped that before the Postmaster-General does so he will consider what he is doing, because if to-day we are to have 100,000 people with reaction, abusing it as they would, there would be chaos in the ether.

The Postmaster-General (Sir W. Joynson-Hicks) said the position is that at present there are only two forms of licence which the Postmaster-General may issue. This is under an agreement made by Mr. Kellaway with the British Broadcasting Co. Under this agreement he could only grant broadcasting licences subject to the proviso that the holders of those licences must use a particular form of instrument marked "B.B.C." It was also open to him to grant experimental licences, in regard to which there was no clogging provision. Both licences were issued at 10s., of which 5s. went to the Broadcasting Co. to enable them to keep up the concerts. He was not sure whether the House realised what was being done, and whether it was in accordance with public policy that the Government should collect a compulsory tax and give a part of it to the British Broadcasting Co. He could not issue any other licence to enable the home constructor to construct his machine without the consent of the British Broadcasting Co. Negotiations had taken place between the company and himself for an arrangement. At first the company offered to allow him to issue a licence to the home constructor with the clog upon it that the instrument should be of British Broadcasting Co. manufacture, and also that the licence should be 20s., of which the company was to get 15s. That offer he declined at once. He told the company he was willing to grant a licence of which half would go to the company, provided only that the parts to be used by the holder of the licence should be made in this country. He knew there is an enormous number of parts made in Austria, France and other countries with depreciated currencies, and there is a possibility of the home market being flooded with them. But the point in dispute was not the question of protection against foreign importations, but that the particular manufacturers forming the British Broadcasting Co. claimed the right to prevent any other manufacturer in Great Britain manufacturing broadcasting materials in this country. He told the company he could not be a party to extending that. But under the agreement as it stood he was bound to see that the broadcasting instruments bore the "B.B.C." mark. In regard to experimental licences, already 87,561 broadcasting licences and 35,385 experimental licences have been issued. There were awaiting 33,000 applications for new licences, and those were being held up because of the decision of the British Broadcasting Co. The Law Officers of the Crown advised that before he could issue an experimental licence he must be satisfied that the object was to experiment in wireless telegraphy, but if he was so satisfied—and he must be the judge of what evidence was needed—he was bound to issue the licence. That being so, he proposed to send all those applications to some of the expert members of his staff tomorrow morning to make a thorough investigation and to advise him which were honestly intended for experiments. Those cases would be submitted to him and licences would be issued.

THE INDEX TO THE CHEMIST AND DRUGGIST is published half-yearly. It is not sent out with the weekly issue, but is sent to subscribers on application. A list is kept of those who desire to receive the index as published, and we shall be glad to add the names of any other subscriber.

IMPORT OF CHEMICALS INTO GUATEMALA.—A list of chemical and medicinal substances which may be imported into Guatemala by persons not licensed as pharmacists or druggists is available, and may be consulted by United Kingdom firms interested on application to the Department of Overseas Trade, 35 Old Queen Street, London, S.W.1. (Reference 7683/F.L.).

Insurance Act Dispensing

Record of matters concerning Chemists' interests in the National Health Insurance Acts.

ENGLAND AND WALES

Local Reports

London.—A meeting of the Pharmaceutical Committee was held on April 17, Mr. H. Skinner (chairman) presiding. The report of the Central Checking Bureau for January showed a margin of error of 0.04 per cent. Mr. M. Moustardier was appointed to audit the Committee's accounts for 1922. The Secretary reported particulars of dispensing for January as follows:—

£	s.	d.	No. of prescript. ..	577,256
Value of ingredients 1,269	9	1	Av. incrd. cost ..	3,44d.
Value of disp. fees 10,893	8	5	Av. disp. cost ..	4,53d.

Other matters dealt with were: The recent prosecution of London chemists for inaccurate dispensing, which is engaging the attention of the Committee. The amendments of Dangerous Drugs Act Regulations. Rota service in two districts of London. Investigations regarding the pharmaceutical service. The biennial election of the Pharmaceutical Committee in June. The Committee considered two complaints against chemists and instructed the secretary to make investigations. The Committee were informed that Messrs. Melhuish and Keall had been reappointed members of the Joint Services Sub-Committee of the London Insurance Committee. A complaint was raised regarding the omission by the Insurance Committee of the number of scripts submitted by chemists on their account forms.

Rutland.—At a meeting of the Insurance Committee, on April 19, the Medical Benefit Sub-Committee reported that an official schedule has been issued to be displayed in chemists' shops to inform insured persons that clean bottles must be produced of the adequate size or paid for, otherwise the chemist may refuse to dispense the medicine. The Sub-Committee presented a scheme for testing samples of medicines dispensed for insured persons in the area. Mr. Barnett inquired why the chemists were to have their medicine tested, and the medical profession got off scot free. The clerk pointed out that with chemists it was purely a commercial matter, and the pharmaceutical service, he believed, welcomed the scheme. The chairman said the doctors' main object was to get their patients better, but obstacles had been placed in their way by inefficient dispensing occasionally.

Circular to Insurance Committees

A CIRCULAR which is being sent by the Ministry of Health to Insurance Committees deals with several details of medical benefit administration. It also states that it has been agreed to extend the list of drugs contained in the Schedule to the Distribution Scheme by the addition of the following:—

Drugs

Colloidal preparations when used for hypodermic, intramuscular, or intravenous injection.

Emetine or salts of emetine when used for hypodermic or intravenous injection.

Ethyl chloride.

Glandular preparations when used for hypodermic or intramuscular injection.

Oxygen.

Peptone preparation when used for hypodermic or intravenous injection.

Appliances

Elastic web bandages.

With regard to claims for payment of drugs and appliances included in the special list it has been agreed that the practitioner may either—

(1) Supply articles in the list to the patient direct, in which case he should render a claim to the I.C. on the official prescription form, attaching any relevant receipted bill or account. The Committee will then send the claim to the Pricing Bureau for scrutiny;

(2) Order the articles from a chemist on a prescription form in the ordinary way.

April Drug Tariff

The following are the alterations for April in the Insurance Drug Tariff for England and Wales:—

Lower.—Adeps benz. B.P., 1s. 8d. lb.; adeps lanæ B.P., 1s. 5d. lb.; æther B.P., 0.720, 2s. 10d. lb.; bism. subnit. B.P., 14s. 3d. lb.; chloroform. B.P., 3s. 10d. lb.; ext. bellad. sicc. B.P., 1s. 6d. oz.; ext. cannab. ind. B.P., 2s. 9d. lb.; ext. casc. sagr. liq. B.P., 2s. 9d. lb.; ext. coloc. co. B.P., 7s. 3d. lb.; ext. glycyrrh. liq. B.P., 3s. 7d. lb.; ext. hydrast. liq. B.P., 3s. 4d. oz.; ferri et ammon. cit. B.P., 3s. 6d. lb.; glycer. pepsin. B.P., 4s. 3d. lb.; hydrarg. oxid. flav. B.P., 7s. 9d. lb.; inf. buch. ex conc., 4s. 6d. lb.; lin. aconiti co. B.P.C., meth. (lin. A.B.C.), 4s. 3d. lb.; lin. aconit. meth., 2s. 9d. lb.; lin. album. B.P.C., 1s. 8d. lb.; lin. belladon. meth., 3s. 3d. lb.; lin. camph. am. meth., 2s. 6d. lb.; lin. sap. meth., 1s. 6d. lb.; lit. terebinthinæ B.P., 2s. 4d. lb.; liq. am. acet. conc., 1s. 4d. lb.; liq. ammon. acet. fort., 1s. 2d. lb.; liq. picis carb. meth., 2s. lb.; lithii cit. B.P., 1s. 2d. oz.; mag. carb. lev. B.P., 1s. lb.; mist. sennæ co. B.P., 1s. 2d. lb.; ol. abietis B.P., 1s. 2d. oz.; ol. caryoph. B.P., 14s. lb.; ol. santal. B.P., 3s. 2d. oz.; pasta zinci co. B.P.C., 1s. 9d. lb.; pil. scillæ co. gr. iv., 1.0d. doz.; pulv. glycyrrh. co. B.P., 1s. 4d. lb.; pulv. tragac. co. B.P., 4s. lb.; saccharum lact. pulv. B.P., 1s. 7d. lb.; salicin. B.P., 1s. 10d. oz.; sēpo mollis B.P., 1s. 8d. lb.; spt. æther. nitrosi B.P., 5s. 8d. lb.; spt. ammon. arom. B.P., 4s. 3d. lb.; spt. vini meth., 6s. gal.; sulphonal B.P., 2s. oz.; sulphur. sublim. B.P., 5d. lb.; syr. chloral B.P., 2s. 8d. lb.; syr. codeinæ phosph. B.P., 2s. 10d. lb.; syr. hypophosph. co. B.P.C., 1s. 7d. lb.; tab. acetan. co. B.P.C., 1.2d. doz.; tab. nasal pharyngeal co., 2.9d. doz.; tr. benzoini co., B.P., 5s. 6d. lb.; tr. camph. co. B.P., 3s. 8d. lb.; tr. capsici B.P., 4s. 4d. lb.; tr. cardam. co. B.P., 2s. 11d. lb.; tr. chlorof. et morph. B.P., '85, 3s. 3d. lb.; tr. gent. co. B.P., 3s. 5d. lb.; tr. quin. ammon. B.P., 4s. 6d. lb.; tr. rhei co. B.P., 3s. 4d. lb.; ung. glyc. plumbi subacet. B.P., '93, 2s. 6d. lb.; ung. hyd. ammon. B.P., 2s. 4d. lb.; ung. hyd. co. B.P., 4s. 2d. lb.; ung. hyd. oleat. B.P., 3s. 6d. lb.; ung. iodi denigres. B.P.C., 3s. 4d. lb.; ung. paraffin. B.P. (Alb.), 1s. 7d. lb.; ung. paraffin. B.P. (flav.), 1s. 5d. lb.; ung. picis liq. B.P., 2s. lb.; ung. plumbi acet. B.P., '93, 2s. 2d. lb.; ung. resinæ B.P., 1s. 9d. lb.; ung. resorcin. B.P.C., 4s. 9d. lb.; ung. resorcin. co. B.P.C., 5s. lb.; vinum ipecac. B.P., 3s. lb. Bandages: Calico, unbleached, B.P.C., 2 in. by 4 yds., 2.3d.; 3 in. by 4 yds., 3.3d. each; flannel, B.P.C., 2½ in. by 4 yds., 12.4d.; muslin, B.P.C., 2½ in. by 4 yds., 2.7d.

Higher.—Acid. acetylsal. pulv. B.P., 5½d. oz.; acid. carbol. B.P. (detached crystals), 2s. 7d. lb.; acid. carbol. liq. B.P., 2s. 4d. lb.; acid. salicylic. B.P., 3s. 9d. lb.; aq. anethi. B.P., 9d. lb.; aq. laurocerasi B.P., 1s. 3d. lb.; barbitonum B.P., 2s. oz.; colloid. salicylic. B.P.C., 7d. oz.; colloid. salicylic. co. B.P.C., 9s. lb.; dec. sarsæ jam. co., ex conc., 8s. 6d. lb.; ext. opii liq. B.P., 4s. 6d. lb.; ext. opii sicc. B.P., 4s. 10d. oz.; glycer. plumbi subacet. B.P., 2s. 2d. lb.; inf. serpentariæ, ex conc., 7s. 6d. lb.; inf. valerian. ex conc., 3s. lb.; lin. hydrarg. B.P., 4s. 6d. lb.; liq. atrop. sulph. B.P., 1s. oz.; liq. morph. acet. B.P., 5s. 3d. lb.; liq. opii sed. B.P.C., 7s. 3d. lb.; magnesia levis B.P., 2s. 2d. lb.; methyl salicylas B.P., 4s. 3d. lb.; ol. ricini B.P., 1s. lb.; paraldehyd. B.P., 4d. oz.; phenacetin. B.P., 10d. oz.; phenazon. B.P., 1s. oz.; pot. permang. B.P., 1s. 6d. lb.; pulv. cret. arom. c. opio. B.P., 3s. 4d. lb.; pulv. lobeliæ co. B.P.C., 3s. 4d. lb.; pulv. stramon. co. B.P.C., 3s. 4d. lb.; salol B.P., 5d. oz.; santonin. B.P., 11s. 7d. dr.; sodii benz. B.P. (artificial), 5d. oz.; sodii salicylas B.P. (cryst.), 4s. 4d. lb.; sodii sulphocarb. B.P., '93, 2s. 6d. lb.; syr. pruni virg. B.P., 1s. 5d. lb.; syr. rhei B.P., 1s. 7d. lb.; tr. chlorof. et morph. co. B.P., 8s. 9d. lb.; zinci sulphocarb. B.P., '93, 2s. 9d. lb. Bandages.—Open wove, grey, B.P.C., 4 in. by 6 yds., 4.5d.; 6 in. by 6 yds., 6.6d.; ditto, white, 4 in. by 6 yds., 5.0d.; 6 in. by 6 yds., 7.4d. Cotton wool.—Unmedicated B.P.C., 1 oz., 1.8d.; 2 oz., 3.1d.; 4 oz., 5.5d.; 8 oz., 10.3d.; 1 lb., 19.0d. Gauzes.—Unmedicated, B.P.C., ½ of 1 sq. yd., 1.1d.; ½ of 1 sq. yd., 1.7d.; 3 sq. yds., 7.8d. Gauze and cotton tissue, B.P.C.—1 oz., 2.2d.; 2 oz., 3.9d.; 4 oz., 7.0d.; 8 oz., 13.3d.; 1 lb., 24.0d. Linls.—Boric, B.P.C., 1 oz., 2.2d.; 2 oz., 3.9d.; 4 oz., 7.7d.; 8 oz., 14.0d.; 1 lb., 26.0d.; unmedicated B.P.C., 1 oz., 2.7d.; 2 oz., 5.0d.; 4 oz., 9.5d.; 8 oz., 18.5d.; 1 lb., 33.0d.

PORT AND STARBOARD.—A daily paper has just discovered—the same discovery was made about twenty years ago—that novels with red covers prove to be “best sellers.” It is possibly some such consideration that governed the choice of an opposed colour for liquor strychninæ in a recent report.

Photographic Notes

By a Pharmaceutical Camerist

FILM WALLETS AS SILENT SALESMEN

Wallets are by far the best to use for handing out finished work, as they form a ready-made pocket book, and customers often produce them months afterwards, while every time an amateur wishes to show his prints to a friend, his wallet is a silent salesman. Photographic houses supply their own designs, but if a distinctive pattern is preferred, chemists' printers have some good specimens at reasonable prices, and a selected advertisement can be used on them instead of the wholesalers'.

BOOKS ON COLOUR PHOTOGRAPHY

The attention of all interested in colour photography and in colour vision should be called to "Photography in Colours," by G. Lindsay Johnson, M.D., whose name will be familiar to students of optics. I find the book was originally published under another title in 1911, and this, the 1922 (fourth) edition, has been carefully revised. Another recent publication is "Practical Colour Photography," by E. J. Wall, F.C.S., F.R.P.S. This comprehensive manual is a thoroughly practical work, and should be of particular use to the experimenter. Mr. Wall, who is, I believe, a registered chemist and druggist, is associate editor of "American Photography."

DECIPHERING CHARRED DOCUMENTS

The problem of deciphering papers which have been charred by fire has recently been investigated by the United States Bureau of Standards (Scientific Paper No. 454), and the results I have had the opportunity of inspecting make the process worthy of remark. The charred papers are placed in contact with the emulsion of fast or medium photographic plates, and after being kept in this condition in total darkness for a week or a fortnight are developed in the usual manner. It is supposed that the gases in the charred paper fog the plate except where it is screened by the ink, as, on development, the plate is blackened except where the writing has been.

TABLOIDS IN PHOTOGRAPHY

A booklet entitled the "Right Method in Photography," which is a revised edition of "The Right Way in Photography," is being issued by Burroughs, Wellcome & Co., and contains a review of the processes involved and how to avoid the pitfalls which await the beginner. Most photographers to-day realise that development is a chemical reaction, the speed of which depends upon the composition and temperature of the solution and the character of the plate or film employed. Successful work, therefore, is rendered more certain by standardised development, and the time-tables published in the brochure form an admirable guide to this end. The booklet is sent post free on application.

METOL DERMATITIS

Various causes have been suggested for metol dermatitis, and definite proof that it is caused by an impurity which can be satisfactorily isolated will be welcomed by all users of metol as a developer. In an address before the Royal Photographic Society, recently, Mr. W. F. A. Ermen mentioned that among the methods of manufacture of metol tried by the British Dyestuffs Corporation, Ltd., was one revealed by German patent literature involving the interaction of methylamine and hydroquinone. The introduction of this process was followed by severe outbreaks of skin poisoning in both works and laboratories. The cause was traced to a soluble impurity, which was found to be the symmetrical dimethyl-paraphenylene-diamine $\text{CH}_3 \cdot \text{NH} \cdot \text{C}_6\text{H}_4 \cdot \text{NH} \cdot \text{CH}_3$. Its distinction from metol follows readily from the differing solubilities of the nitrosamines. Since the metol prepared previously by the Lapworth process had proved innocuous, it is probable that poisoning was due solely to the presence of this impurity. As a preventive of the poisoning the hands should be immersed in an acid liquid, such as dilute acetic acid or sodium bisulphite before using the developer.

CONCERNING CAMERAS

Many improvements have been carried out in the design and workmanship of British-made cameras of late, the Ensign Cupid, for instance, which sells at a price within reach of everyone, embraces several novel features. A striking coloured poster (19 in. x 29 in.), which chemists should not fail to obtain, is being sent out by Messrs. Houghtons to advertise Ensign photography. I have also been attracted by the apparatus of Amalgamated Photographic Manufacturers, Ltd., whose 1923 price list, a comprehensive one, I have recently received. Regarding the roll film cameras, among the points worth drawing attention to are the spool-holders, which swing out for loading and unloading, and the pressure pad at the back for keeping the film in the correct focal plane. The company issue a monthly exposure table (8½ in. x 13½ in.), which, covering a variety of subjects and speeds, from H. & D. 100 to 500, will answer, or if exhibited in a prominent place avoid, many queries.

PRINTING PAPERS

The number of photographic papers is legion, and it is impossible to supply every make from stock. For a chemist just starting, or re-organising a neglected photographic department, the most popular sizes to commence with are V.P.K., 3½ in. x 2½ in., ¼-plate, and 4½ in. x 2½ in. Self-toning papers are most favoured by amateurs, and half-a-dozen packets of each size, glossy and matt, in three or four good makes, such as Seltone, Intona, Paget, Kodatone, should enable the beginner to feel his market. Regarding gaslight, same sizes, with glossy and carbon surfaces, vigorous and normal, of such makes as Ilford, Velox, Slogon, Wellington, should suffice. A useful and probably one of the best methods of storing papers is in shallow trays (boxes cut down are quite suitable) which slide into a counter cupboard. The trays should have divisions from front to back, and the packet of paper can be placed in them on edge, similar to a card index drawer. In this way every packet can be seen at once, and the removal of one packet does not upset the remainder, whilst it is extremely easy to see what is in stock when re-ordering.

GRASPING AN OPPORTUNITY

The sunshine at Easter brought out the press-the-button worker in greater numbers than ever, and the amount of D. and P. work during the ensuing week, in many instances, constituted a record for such an early season. With the bulk of pharmacists, photography remains a summer trade, and it is to be hoped this early start did not catch them unprepared. In any case, another opportunity is presented with the approach of Whitsuntide, and a special effort, including the overhauling of stock and a special window display, should be arranged at least a fortnight earlier. Photographic houses are especially generous with show material, and a new supply can always be had in return for a trade card. Photographs are the best attraction; the public is always ready to stop and look at pictures, and in addition to the specimens provided by the trade, it is advisable to have some of local interest, such as views or topical events. Photographs of children are always a draw, and one of the most successful exhibited by the writer was a V.P.K. snap of a local Scout troop. An enlargement was made, and the two were put in the window. There were very few hours of the day when these had not their admirers, and quite a number of enlarging orders were taken on the strength of it.

New parcel-post rates to the Caroline Islands, Marian Islands (except Guam) and Marshall Islands (except Nauru) are given in "The London Gazette" of April 24.

EUCALYPTUS OILS.—Shipments of eucalyptus oils to this country have greatly diminished, although more people are engaged in the industry than ever before. In Victoria over 100 firms are distilling various grades of oils. A combination that would ship suitable oils could easily treble present sales. Eucalyptus oils are wanted for so many purposes that the possibilities of the trade are very large.—"British Australasian."

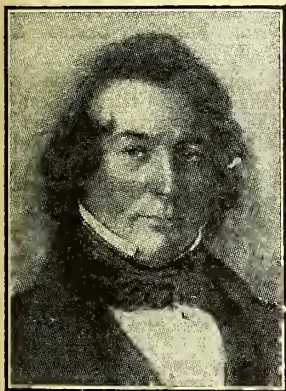
Alkali Industry Centenary

DURING the past week the hundredth anniversary of the foundation of the alkali industry has been celebrated, on the invitation of the United Alkali Co., Ltd., Liverpool, by industrialists, scientists and others who have an interest in what appertains to the heavy chemicals industry. A dinner at the Midland Adelphi Hotel opened the proceedings on April 18, at which many distinguished guests assembled under the chairmanship of Sir Max Muspratt, Bt. During the following three days visitors were divided into groups and taken over various alkali and sulphuric-acid works at Widnes, lunch being afterwards served at the Adelphi Hotel. Excellent arrangements had been made for handling the large numbers who responded to the invitation, and who were thus able to see for themselves something of the nature of those gigantic industries which, as events have clearly shown, are in no small degree, bulwarks of the British Empire.

HISTORICAL

The story of the alkali industry is in large measure that of the Muspratt family, which was related in "My Life and Work," the autobiography of Mr. E. K. Muspratt, LL.D., father of the present chairman of the

United Alkali Co., Ltd., Sir Max Muspratt, Bt. The book was reviewed at length in THE CHEMIST AND DRUGGIST, I., 1917, p. 83, and many interesting details affecting the growth of the industry, both directly and indirectly, are there described. The founder of the alkali industry was the grandfather of the present chairman, James Muspratt, who, as a boy of fourteen, commenced an apprenticeship with a Mr. Micheltree, wholesale chemist and druggist, Dublin, and it was in



JAMES MUSPRATT, 1793-1886

the year 1823 that he started, in Liverpool, to manufacture soda by the Leblanc process. There are, naturally, well-defined milestones in the progress of the industry; for example, following the end of the American Civil War and after the Franco-German War. But the Leblanc process met a serious set-back for the first time when the ammonia-soda process was established on an important scale by Brunner, Mond & Co., Ltd., in 1881. The ultimate outcome of this was the formation of the United Alkali Co., Ltd., which may perhaps be best described in the words of Mr. E. K. Muspratt: "In 1890 the United Alkali Co., Ltd., was formed for the purchase of, and consolidating into one undertaking, various chemical and copper works in the United Kingdom, in which bleaching powder and other chlorine products, soda ash, caustic soda, sulphate of soda, crystals of soda, sulphuric acid, sulphur, etc., were manufactured by the so-called Leblanc process, and two works in which alkali was manufactured by the ammonia-soda process. By this amalgamation several small works were closed, and the others were placed under competent scientific management, resulting in more economical production. A central laboratory was built fully equipped for chemical research, and a large number of trained chemists were engaged at adequate salaries with a view to improving the process of manufacture, and, where thought advisable, of investigating and adopting new inventions." The resources of the company have since been developed in accordance with this plan by undertakings outside the sphere of inorganic chemistry, and to-day the operations of the company cover a great part of the wide field of fine chemical and dye intermediate

manufacture. It is noteworthy that, according to the chairman, during the war "No other company had such a range of vital chemical products as had the United Alkali Co."

THE MARSH SULPHURIC ACID WORKS

On April 20 a representative of the C. & D. was one of a large party which left the Central Station, Liverpool, and travelled by special train to Widnes, where an opportunity was afforded of inspecting the Marsh Works. These works cover an area of twenty-five acres, and are devoted entirely to the manufacture of sulphuric acid, which is turned out in immense quantities. There are plants for the production of sulphur dioxide from pyrites, brimstone and the spent oxide from gasworks, and various concentrations of acid are manufactured by the contact process. At the entrance to the works the party was subdivided, a guide taking charge of each section. A chemical factory, it would seem, must always present a grim and somewhat cheerless aspect to the visitor, but the sunshine of a delightful spring morning, coupled with the expectation of seeing something interesting (which was fully realised), effectively neutralised that first impression. As we passed to the pyrites burners the huge purifying plant, in which arsenic from the vitriol is precipitated as sulphide, met our gaze, and we were perforce content with a view of the building from the ground. The roasting of the pyrites (FeS_2) was taking place in a series of furnaces, the doors of which were sealed up with clay. Within the building a slight pungency of sulphur dioxide and the heat of the furnaces indicated that charges of pyrites were yielding up the sulphur. Dumps of the greenish-yellow stone were lying about in readiness for the next charge.

As already briefly mentioned, the spent oxide from the gasworks is used in a series of the Wilde mechanical burners, which are fed internally by hoppers on an endless chain. The oxide is returned to the gasworks for use over again, for nothing is wasted. It is perhaps this reduction of waste to a minimum that is a fascinating feature of large-scale chemical operations. Even time appears to have a subordinate place in the general plan of things, for there is only the beginning and the end of a process which is repeated day and night without ceasing.

THE CONTACT PROCESS

The sulphur dioxide thus produced may be used for the manufacture of oleum or concentrated sulphuric acid by the contact process, or the last-named only, by the chamber process. Ordinary sulphuric acid contains only about 80 per cent. of sulphur trioxide, the rest being water in chemical combination. Oleum containing up to 100 per cent. anhydride is therefore made up by replacing the water with sulphur trioxide. In converting sulphur dioxide into the trioxide at the Marsh Works by the contact process either platinum or ferric oxide is used as the catalyser. As is well known, arsenic acts as a "poison" on catalysts, and this impurity must be eliminated before the gas passes to the platinum catalyser. The Grillole oleum plant not only removes the arsenic, but also any moisture for, in the preparation of sulphur trioxide for oleum, the sulphur dioxide and air must be "bone dry" before they enter the combination tower, which is packed with platinised coke. The sulphuric anhydride is afterwards led into sulphuric acid for the production of oleum or concentrated sulphuric acid. In the latter case the concentration may be maintained by a steady influx of water. Thus any required concentration may be produced at will. That, omitting details of regulating the temperature of the gases, is briefly the process followed. It may be added that the size of the plant employed throughout was sufficient to impress on the minds of the visitors the volume of materials used in large-scale manufacture.

At this point specimens of various concentrations of acid were produced, one bottle of water-white "straight run" acid (i.e., without any subsequent purification) being pointed out as an indication of the high state of purity to which the manufacture of sulphuric acid at the Marsh Works had attained.

THE CHAMBER PROCESS

We climbed a narrow wooden staircase on the exterior of a huge lead chamber in which the old process of the early text-books is still carried out. There is, however, one stage that is comparatively new. Nitric acid as a carrier of oxygen is of course essential in the chamber process, and formerly it was obtained from Chilian saltpetre. To-day the nitric acid is obtained by the contact process from ammonia. So next we passed along a gangway to the ammonia house, where a mixture of ammonia and air in exact ratio (this being most important) is passed over finely divided platinum. A bell jar outside filled with the characteristic light brown nitrogen tetroxide tells at a glance that all is well with the process. The lead chamber acid is of course only a 60 to 70 per cent. solution and is very impure; there is another plant for concentrating the acid thus produced.

There was just time to peep into the laboratory attached to the works where the ubiquitous atom of arsenic is hunted down and detected by a modified Gutzeit test when present, in the proportion of one in 1,000,000 parts.

At West Bank, about five minutes' walk from this house of the infinitely small, lies a Brobdingnag of boilers, turbines and dynamos—the United Alkali Company's power station, which is one of the most modern of its kind. Outside, railway trucks of coal are emptied by a giant tippler, and the coal is automatically hoisted over the boilers to bunkers with a total capacity of 1,830 tons. The stoking is also automatic. The engineer who conducted our party spoke easily and familiarly concerning the thousands of horse-power, volts and revolutions of the monsters which he controls while we followed him over every nook and cranny of the power station. Of the pumps that bring the water from the Mersey, the oil system circulating through the entire plant, and the 6,600-volt switch gear it is difficult for a non-expert to appreciate anything beyond the skill and knowledge that underlies their conception. But the opportunity of seeing this wonderful source of energy was a fitting climax to a most interesting visit.

A luncheon at the Adelphi Hotel, Liverpool, followed, where Sir Max Muspratt, Bt., received each of his guests. Afterwards, in welcoming those present, Sir Max said there would be no formal speeches. He thought, however, that at the conclusion of 100 years' experience of the industry it was expedient for them to understand all the branches of the great industrial concern to which they belonged, and of which they are so proud. He was glad that gentlemen from the big trade unions were present to observe and understand their difficulties and problems. A bouquet from Holland for the U.A.C. he said he would ask the only lady present to accept. Various speakers expressed thanks on behalf of those present for the pleasure they had experienced. Mr. McBeth, one of the labour representatives, announced the institution of a welfare scheme by the U.A.C. for the workers who have grown old in the service of the company.

An attractive brochure issued by the United Alkali Company as a memento of the anniversary contains a short account, by Mr. J. T. Conroy, chief chemist to the company, of the technical developments of the alkali industry, followed by some personal notes on the founder, James Muspratt, written by his grandson, Mr. Horace Muspratt. The events which led to the amalgamation of the various firms of Le Blanc process manufacturers to form the United Alkali Company, Ltd., are detailed in another article; Mr. John E. Davidson describes the activities of the heavy chemical industry on the Tyne; and Mr. T. W. Stuart contributes some notes on the Tennant family, whose association with the alkali industry dates from its inception.

Goods consigned to Paraguay must now be accompanied by an invoice bearing the visa of a Paraguayan Consul. No charge will be made for the visa in the case of consignments the value of which does not exceed 500 pesos; if over this amount, a Consular fee of 0.5 per cent. of the value of the goods has to be paid.

Recent Patents

Abstracts of specifications of recently-granted British patents for inventions. The complete specification (1s. each including postage) can be obtained from the Patent Office, 25, Southampton Buildings, London, W.C.2, on quoting the name of the patentee and the number of the patent.

Attachment of Roll Films.—A photographic film cartridge in which the lug formed at the end of the sensitive film is held within a pocket formed on the paper band. (Gevaert Photo-Producten N.V. 185,097.)

Antiseptic Tablets.—An antiseptic is prepared by dissolving mercuric iodide in a solution of an alkaline iodide, adding a diluent in the form of a stable alkali salt having a slight alkaline reaction or a solution of boric acid and evaporating to dryness. (J. H. Quine. 195,317.)

Oxidising Fatty Oils.—A process for oxidising fatty oils or the like by introducing oxidising gases which are preheated to a suitable temperature and led into and through the oil, the heating of the gases being stopped so soon as the oil has reached a predetermined temperature. (R. Arends. 195,290.)

Arseno-Compounds.—A process of preparing arseno-preparations which are stable in solution by combining with arsenobenzene derivatives alkylene sulphonylate compounds of amino-bodies which are not arsenobenzene derivatives. (Farbwerke vorm. Meister Lucius & Brüning. 174,078.)

Pure Alumina.—Ferruginous bauxite is heated in a reducing atmosphere to render the iron and titanium content magnetic while leaving the aluminium oxide and silica unaffected. The magnetic particles are extracted by a magnetic separation process and the aluminium oxide and silica residue treated with hydrochloric acid or sulphuric acid. The salt obtained is calcined by evaporation of the solution and the acid recovered. (A. L. Pedemonte. 195,295.)

High-grade Esters.—A process which comprises the introducing of a preheated mixture of an alcohol, an organic acid and a catalyst into a column still, heating the mixture by injection of steam, rectifying the ester formed so as to produce a constant boiling mixture of ester, alcohol and water, which is brought into contact with a body of water, thereby forming two layers of liquid containing respectively high and low percentages of ester. (E. C. R. Marks. 195,117.)

Titanium Pigments.—The manufacture of a hydrolytic titanium precipitate from a solution of a titanium salt by heating the solution to a temperature higher than its atmospheric boiling-point. A pigment containing a titanium compound or compounds is produced by hydrolytically precipitating such compound or compounds on barium sulphate particles carrying out the precipitation at a temperature substantially above 100° C. and under pressure substantially above atmospheric. (H. H. Buckman. 195,181.)

Self-filling Syringe.—Comprises a barrel with covers at its front and back ends, a piston having a hollow rod, by which the fluid is conveyed to the barrel, an inlet valve in the piston, an outlet valve in the front cover of the barrel and means providing a sliding connection between the inlet and outlet valves. It is characterised by the fact that the means of serving to operate the inlet and outlet valves operates to rotate the valves during the inward and outward strokes of the piston. (G. Graham. 178,087.)

Classification of Mineral Particles.—A soluble mineral salt which may be either aluminium or magnesium sulphate, together with hydrate of calcium or ammonium, is added to water holding mineral particles, finely divided ores or native metals, clays, graphite or sands in suspension, to facilitate the classification of such particles by weight, by depositing them in settling tanks. An acid may subsequently be added to facilitate the deposition of the particles upon the buddle, frame or apparatus used for their recovery. (R. H. Smythe. 195,113.)

Industrial Spirit Permits

A manufacturing chemist gives the benefit of his experience in obtaining permits for the use of industrial methylated spirit. His article forms a commentary on the summary of the regulations given in the "C. & D. Diary," 1923.

To obtain an Excise permit for the use of industrial methylated spirit, application must be made to the local officer, who will forward the usual form. This form, on completion, must be returned to the same officer, accompanied by a list of formulas in full detail. Each formula must contain the necessary denaturants: the Commissioners do not inform the applicant of the denaturants required. Once a formula has been sanctioned, it cannot be altered in any detail without the permission of the Commissioners. It is advisable to write the formulas in English. Where a formula will permit of several odours being required, the fact may be stated, to avoid repetition. Example:—

No. 4.—Dry Shampoo

Carbonate of potash	...	12 oz.
Water	...	2 galls.
Industrial spirit	...	3 galls.
Synthetic violet	...	1 oz.
Dry extract of quassia	...	1 oz.
Saponin	...	2 dr.

Other odours, in the same proportion, as required.

When an ingredient, such as cantharidin, that is sometimes used in duty-paid spirit, appears in the formula, its storage in industrial spirit as a separate solution is not allowed. All such formulas must be compounded at one operation. To save comment, it is desirable to state at foot of formula, "All in one operation." An extract must be particularised as fluid, dry, or solid—if fluid, whether aqueous or alcoholic, and if alcoholic, it must be made with duty-paid spirit if the standard extract is so made. "Perfume, q.s.," is not sufficient—the exact quantity must be stated; but "colouring, q.s.," is allowed. Formulas should be numbered for further reference, and also for the convenience of the Commissioners. The following formula is imaginary, but illustrates the details just mentioned:—

No. 16.—Jaborandi and Cantharidin Hair Tonic

Fluid extract of jaborandi	...	2 pints
(alcoholic, duty-paid)		
Cantharidin	...	2½ gr.
Chloroform (methylated)	...	½ oz.
Oil of rosemary	...	¼ oz.
Oil of geranium	...	½ oz.
Strong liquid ammonia (0.880)	...	2 oz.
Industrial spirit	...	3 galls.
Water	...	2 galls.
Dry extract of quassia	...	1 oz.
Saponin	...	2 dr.

All in one operation.

No fixed rule can be followed with regard to denaturants. Dry extract of quassia and saponin are, of course, readily accepted, and if colour is no object it is advisable to use these as often as possible. Bay rum made with industrial spirit may not be mixed with pure rum. Quinine, ammonia (0.880), acetic acid, carbonate of potash, boric acid, salicylic acid and menthol, to a certain extent, act as denaturants; many others will, no doubt, suggest themselves. In using quinine, care must be taken to avoid approaching a perfumed tincture. Industrial spirit is not allowed for use in perfume, and all mention of perfumed spirit—which cannot be obtained duty-free—will be rejected. One should avoid using titles which suggest this—for instance, "Cologne spray for halls and theatres," and should instead use the words, "Antiseptic spray"; but a Cologne recipe can be accepted if sufficiently denaturised. Separable brilliantine presents a difficulty, but by using castor oil as the denaturant the formula will be allowed—e.g.:—

No. 38.—Separable Brilliantine

Mineral oil	...	2 pints
Industrial spirit	...	9½ oz.
Castor oil	...	½ oz.
Synthetic violet	...	¼ oz.

Other odours, in the same proportion, as required.

As perfumed industrial spirit is not allowed for storage, a note should accompany the formula explaining the impossibility of "one operation" for separable brilliantine. The authorities will readily allow storage in such cases if 5-per cent. of the spirit is replaced by castor oil. This also applies to "flowers and honey." Other denaturants can be used, but castor oil is convenient and the most readily accepted. An important point to bear in mind when submitting formulas is that the Commissioners do not take notice of the statement that the preparations are not in the form of potable spirits when they reach the public.

GENERAL CONDITIONS

An estimation of yearly requirements has to be given in every case. Should this be over 50 gallons, a bond will be required to ensure proper use of the spirit—in the sum of £200 up to 400 gallons, and £50 in addition for every further 100 gallons. The maximum is £1,000, and for this sum any authorised quantity may be used. For a bond of £200, one surety is required: if over that amount, two are necessary. Approved guarantee societies are accepted by the Commissioners. Requisition books are provided by the local officer free of charge. A requisition form must be sent with each order for spirit, and a permit will be returned by the methylators with each delivery, the permit being attached to the container. This permit is to be pinned to the requisition counterfoil for collection by the Excise officer—failure to observe this condition may involve liability to a fine of £50. Should it be necessary to return the spirit to the methylators, the sanction of the Commissioners is a prerequisite, and a permit must be obtained from the local Excise officer. No spirit is allowed in transit without a permit being attached to the container. In making application, a place must be described for storage; when it has been approved by the Commissioners, the spirit must be kept under lock, and the key held by a responsible person. In deciding on the place for storage, fire-insurance policies have to be considered, so it is advisable to approach one's insurance company first. Duty-paid spirit is not allowed to be stored in the same room as industrial spirit, nor may both kinds of manufacturing operations be carried on together except in case of special permission. All Revenue officers must have free access to all parts of the premises where the spirit is stored or used. They are also authorised to obtain samples of any preparations, and can be requested to pay for them if a reasonable price is asked. A little tact goes a long way. Industrial methylated spirit must only be used for the purpose sanctioned, and may not be purified or made potable in any way without the permission of the authorities. For toilet preparations no sanction will be given, and the spirit is not allowed to be used for perfumes. In submitting formulas it is wise to avoid any perfume advertised for "covering" the odour of the spirit. An account of the spirit used yearly must be given on an official form, which provides for a note of the quantity used for each process. It is, however, not necessary to keep a detailed account as in the case of duty-paid spirit. Industrial spirit must not be sold by the users, nor may it be given to any retailer of wines and spirits. For the latter breach of confidence the bonds will be forfeited and the sanction for use withdrawn. Should the use of industrial spirit be discontinued, the stock in hand may only be disposed of by resale to the methylators. If they refuse to receive it, it must be destroyed, notice being previously given to the local Excise officer.

PERSIAN DRUG EXPORTS.—The following are among the exports from Persia (via Bushire):—

	1920-21	1921-22
Tragacanth	£75,688	£113,057
"Insoluble" gum acacia	12,134	4,286
Opium	498,405	285,389
Drugs	6,597	3,346

Of these total exports, 37.25 per cent. was destined to the British Empire in 1920-21, against 38.76 per cent. in 1921-22.

Council Candidates

II.

THERE are eight candidates for the seven positions on the Council of the Pharmaceutical Society of Great Britain, which fall vacant in May. The names of the candidates were given in our issue of April 7. The candidates who are not already on the Council are Mr. Thomas Hardy, Maryport, and Mr. E. H. Simmons, Salford. We have asked the candidates to favour us with their views on pharmaceutical politics, and in our last week's issue (p. 541) we published a first instalment.

Mr. A. R. Keith

was born at Arbroath, of which town his father was Provost. On leaving Arbroath High School he served



MR. A. R. KEITH

his apprenticeship to Mr. D. Haithly Burn, a townsman, and then proceeded to Edinburgh, where, after a period of assistantship, he qualified in 1877. Mr. Keith next gained further experience in London with Savory & Moore, Ltd., and the late Mr. Michael Foster. Before long he acquired a business at Laurencekirk, which he subsequently disposed of to Mr. James Laing on purchasing one at Hillhead, Glasgow. Returning to London, Mr. Keith was for a time in business in Upper Holloway, until in 1904 he became the proprietor

of the pharmacy at 6 Chrisp Street, Poplar, formerly carried on by M. Snowden Kirk. This business dates back nearly a century. Mr. Keith has been a member of the Council of the Proprietary Articles Trade Association, and took a leading part in the campaign for securing face values. He was a founder of the London County Pharmaceutical Association, of which he is one of the most honoured members, and has also served for some time on the London Pharmaceutical Committee. For the past nine years Mr. Keith has been President of the East London Pharmacists' Association—a fact which speaks for itself. During the war he joined the Pharmaceutical Volunteer Corps, and he is still affectionately referred to by his intimate friends as "the Corporal." The sensational Council election of 1920, in which Mr. Keith, who had been chairman of the protest committee formed to oppose the passing of the notorious by-law admitting unexamined persons to the Register, headed the poll of twenty-two candidates, has not been forgotten; and it will not be surprising if he repeats that triumph. Hard work, however, is needed to ensure such a success.

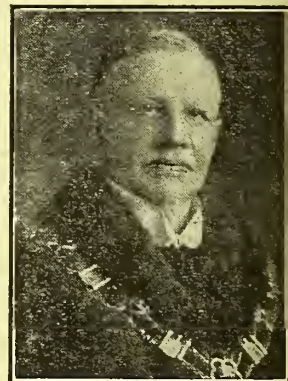
A bright, cheery voice invading the editorial room was a sign that Mr. A. R. Keith had been shown in. "You want to know about my views on pharmaceutical politics," was Mr. Keith's reference to a letter we had sent him. Then Mr. Keith, who confessed the absence of any burning question in the politics of pharmacy, gave us reasons for his re-election to the Council of the Pharmaceutical Society. It was an optimistic outlook from one who enthusiastically believes in pharmacy, and has "got there" by hard work. His sympathies are with his fellow chemists, and this was evinced by his reference to the flourishing state of the Society's finances, which point to the possibility of a reduction in the annual subscription. The multiplicity of subscriptions is becoming embarrassing to many, and questions are bound to arise as to benefits and value received from the money. The Society might set an example by reverting to its old subscription now that the trade side of the corporate activities has been excised. The Pharmacy Bill, promoted by the unqualified and under-educated section of drug-shop proprietors, should be opposed by every means possible if it should come within the range of practical politics. Alluding to the fact that the Bill is fathered in the House of Commons by certain trade unionists, Mr. Keith said:

"What would these people say to a Bill designed to give the benefits of a trade union to any blacklegger who chose to promote a Bill in Parliament?" As an all-round sportsman and captain of the East London Chemists' Bowling Club, which holds the championship of the Metropolis, Mr. Keith is one who can "play the game," and he expects it in others—trade unions included. As regards education, an alteration in the syllabus of the Qualifying examination would not now have so serious a consequence as before the war, owing to the large number of qualified men who are available. "It would not be a bad idea," he said, "to form post-graduate classes on trade subjects for the newly qualified. One of the great difficulties that chemists find is the lack of practical experience shown by assistants who have spent several years in the Services, which in the ordinary way would have been devoted to widening their knowledge of the trade." This opens up a pleasing prospect of certificates in book-keeping, window-dressing, etc., which would prove an assistant's knowledge of these subjects in the same way that optical certificates testify to a knowledge of sight-testing.

Mr. Philip F. Rowsell, F.C.S.,

was born and educated at Yeovil. After serving his apprenticeship to Mr. J. J. Ogilvie Evans, Orchard

Gardens, Teignmouth, he became an assistant in the business of Holman, Ham & Co., Exeter, which dates back to 1765. Having passed the Qualifying examination in 1886, Mr. Rowsell returned to the business at Exeter as manager, and in the course of a few years he became sole proprietor. The concern was converted into a private limited company in 1911. Mr. Rowsell has for many years past been prominent in public work of many kinds. In 1907 he became President of the Proprietary Articles Trade Association (an office he again filled in 1922), a justice of the peace for Devon, and a member of the Council of the Pharmaceutical Society. For the past two years he has been Mayor of Exeter, and in that city he has occupied several other positions of importance. In addition, Mr. Rowsell has taken an active part in the work of the Methodist Church, and was for some time a Parliamentary candidate for the Bridgwater Division of Somersetshire. From the inception of the Insurance Act he has rendered conspicuous service in its administration in Devon, and was chairman of the County Insurance Committee from 1917 to 1921. He is also treasurer of the Retail Pharmacists' Union. Mr. Rowsell writes:—



MR. P. F. ROWSELL, F.C.S.

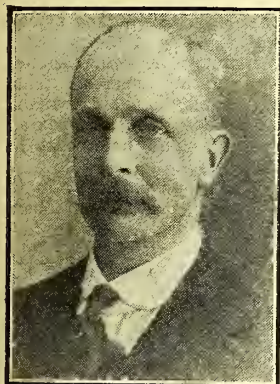
As one who has now served on the Council of the Pharmaceutical Society for many years, I feel my views on the various questions affecting pharmacy are fairly well known, but since the test case new situations have arisen. The Society must now, and rightly so, devote its attention largely to educational and other matters affecting our calling; but it seems to me, however, that the time is somewhat far distant when pure pharmacy can provide a livelihood for all its members. It is therefore essential that such bodies as the R.P.U., the C.D.A. and the P.A.T.A. must of necessity play an important part in our calling, and that a close connection should exist between these various bodies and the Pharmaceutical Society.

During the time I have been on the Council I have held prominent positions in connection with these bodies, and have always taken advantage of my position on their governing councils, with, I hope, some success, to promote harmony and co-operation. Particularly was this so in connection with the formation of the R.P.U.

While the work of these bodies referred to is of the utmost importance to pharmacists, the province of the Society is of course paramount, for it is to it that we must continue to look for the protection and the enhancement of the value of our qualification, upon which all else depends. I am strongly in favour of the administration of the War Auxiliary Benevolent Fund on a wide and generous basis, subject, of course, at all times to its original object not being interfered with.

Mr. F. E. Bilson

served his apprenticeship at Newark, gained wider experience at Brighton, and passed the Major examination in 1881. He then spent



MR. F. E. BILSON

five years in the historic house of John Bell & Co., where one of his fellow-assistants was Sir Richard Winfrey, M.P. In 1886 he commenced business on his own account at Bourne-mouth, where he has for several years acted as secretary to the local association (of which he was one of the founders). Mr. Bilson is widely known as the designer of a mould and an improved formula for glyco-gelatin pastilles. He has been a member of the Pharmaceutical Society's Council for a considerable period, and on the resignation of Mr. W. H. Gibson from the treasurer-

ship in 1918 was elected in his stead. Mr. Bilson replies to our request for a confession of faith as follows:—

My reasons for seeking re-election to the Council are, among others, as follows:—

(1) That I hope I have been of service to members during the twelve years of my councillorship, and during my tenure of office as treasurer.

(2) That I hope the members may think me able to render continued service in their interests.

(3) That I am convinced of the soundness of the Council's educational policy as the main factor in improving the material as well as the professional standing of pharmacists.

(4) That I strongly believe in the necessity for administrative efficiency combined with economy in the conduct of the Society's affairs.

(5) That I would help forward every effort for protecting the titles and practice of pharmacists, and for safeguarding the calling from unnecessary or ill-considered Parliamentary and other measures of regulation.

Mr. H. O. Lloyd

was apprenticed in 1899 with Mayous, Ltd., Birmingham, of which city he is a native, and passed the Qualifying examination in 1907. He then



MR. H. O. LLOYD

purchased the business of the late Mr. G. H. Brunt, Coventry Road, Birmingham. In the course of a few years he converted his rapidly growing wholesale department into a limited company, and started an advertising service for chemists. Since Mr. Lloyd's election to the Pharmaceutical Society's Council in 1920, he has relinquished all his commercial activities in the Midlands, and is now solely interested in J. R. Cave (1922), Ltd., chemists, 52 Nevill Street, Southport, of which concern he is a director. He remains the official candidate of the Birmingham Pharmaceutical Association at the request of

the members, over whose destinies he presided for two years. Mr. Lloyd sends the following concise statement of his views:—

In my opinion, briefly, the policy of the Council during the next three years will lie in developing the constructive work of the past three years, mainly in education and organisation; with the assistance of the branches, the next three years should see schools approved for Part I. of the Qualifying examination, to enable most apprentices to be able to take Part I. during apprenticeship, a desirable position, beneficial both to apprentice and master. Constant vigilance will be needed to protect members against legislation and orders affecting our statutory rights; every possible step must be taken to prevent scheduled poisons being obtained by unqualified traders, and every opportunity taken to restrict the dispensing of prescriptions to pharmacists.

Business Changes

THE MENTHOLATUM CO. are removing their factory and offices, as from April 27, from 329 High Holborn, London, W.C.1, to The Trading Estate, Slough.

PIQUETS, CASH CHEMISTS, 11 Halkett Place, St. Helier, have taken over the business of Mr. E. T. Adams, chemist and druggist, 53 King Street, in the same town.

MR. C. W. MARTIN, chemist and druggist, late of Aldeburgh, has acquired the business of the late Mr. A. P. Bebb, chemist and druggist, 45 Rosemary Road, Clacton-on-Sea.

MR. A. J. WILLSON, St. Magnus House, Monument Street, London, E.C.3, is closing down his London buying and export business, and transferring his office to Cape Town (P.O. Box 1155).

THE goodwill of the business recently owned by Chemicals and By-Products, Ltd., Watford, has been acquired by the Thames Chemical Co., Ltd. (with which is associated the Cooper Laboratory), Watford.

MR. O. F. MOSS, chemist and druggist, 29 King's Road, Chelsea, and 175 Uxbridge Road, London, W.12, has purchased the business of Mr. J. H. Frost, chemist and druggist, 9 High Street, Hornsey, N.8, who has conducted this pharmacy for the past thirty-eight years.

NEWCASTLE-ON-TYNE CO-OPERATIVE SOCIETY has acquired the business of the late Mr. James Dunn, Ph.C., 360 Scotswood Road, in that town, and will carry it on as a drug department. Mr. A. W. Dunn, son of the late Mr. Dunn, will, however, continue the manufacture and sale of certain specialities.

MR. J. FOSTER, chemist and druggist, 13 Breck Street, Poulton-le-Fylde, has taken over the business of Mr. E. Blade, chemist and druggist, in the same town. Mr. Blade, who was apprenticed to the late Mr. R. M. Pratt, Otley, in 1858, and passed the Qualifying examination in 1868, is relinquishing business for reasons of health. He has carried on his present pharmacy for thirty-four years.

THE mysterious poisoning of dogs by strychnine is reported from the neighbourhood of Barnet. It is understood that the strychnine has not been obtained locally. A reward of £25 is offered by the Canine Defence League for information leading to conviction.

THE LAST OF AN OLD PHARMACY.—In the "Morning Post" of April 9 it is mentioned that No. 8 St. James's Street, London, W.1, is in the hands of the house-breakers. These premises were for two centuries or so occupied by Pope Roach & Son, chemists, and their predecessors (*C. & D.*, 1913, p. 247), and about the end of the year 1811 the poet Byron took lodgings over the shop. The "Post" article referred to is largely taken up with details of the efforts of Byron to reduce his weight; oddly enough, there was a substantial decline (from 11 st. 5½ lbs. to 9 st. 11½ lbs.) in 1811. This, however, was not attributable, apparently, to removal to No. 8, but to absence from England.

tail and dispensing concern he is a director. He remains the official candidate of the Birmingham Pharmaceutical Association at the request of

Pharmaceutical Botany

IV. Thallophyta

THIS group contains lowly organised plants showing no differentiation into axis and appendages, the word thallus (and phyton, a plant) literally having this meaning. Root-like organs of attachment when present are mere "hold-fasts," and not for purposes of absorption. Some algæ have leaf-like appendages, but these are more an incident of form than a true division of labour as with leaves and stems of higher plants.

The Thallophyta is a collection of somewhat divergent sub-groups with marked colour differences. The blue-

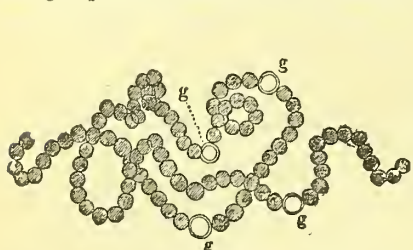


FIG. 10.
Coiled Filament of *Nostoc*: g. heterocysts. Highly magnified.



FIG. 11.
Whip-like Filaments of *Rivularia*. Magnified.

green algæ (see below) retain quite primitive characteristics. The true green algæ are more highly developed and present excellent examples of different stages in evolution of cell complexes and of "sexuality." The fungi undoubtedly originated from various algal forms by loss of chlorophyll, but specialisation following their degenerate mode of life has resulted in so many innovations that frequently they are treated as a separate group. The colours of the brown and red seaweeds are the result of their special habitats, as will be shown in a later article.

An aquatic mode of life is the reason for the thallophytes retaining an inherent simplicity of structure. So long as each cell is bathed in food solution there is no need to develop special "tissues" for translocation or storage of food. The cell builds up material as fast as circumstances permit and uses it on the spot for growth and reproduction. Unicellular (green) plants living in water possess many advantages so long as food and light are ample. They present maximum surface for absorp-

fulfils all the duties of plant life. The loss in absorptive surface is compensated by increase in protection. A further stage is the tendency of some cells to die that others may flourish.

The blue-green algæ (*Cyanophycæ*) have many primitive characteristics, including absence of nucleus, plastids and methods of sexual reproduction. They share these features with bacteria, these two sub-classes forming together the lowliest plant group of fission plants or *Schizophyta*. The lumps of blue-green jelly which appear on damp ground, especially in wet weather, will usually show under the microscope the beaded filaments of *Nostoc* (Fig. 10) winding in every direction. Empty cells or heterocysts (hetero=different) occur at intervals, and portions of filaments may separate there and creep out of the gelatinous mass to start a new colony. How they move is not known, as cilia are absent. When drought sets in some of the vegetative cells increase in size, secrete a resistant covering, and form resting spores. These germinate into new filament when water is again available. *Rivularia* (Fig. 11) illustrates difference between apex and base of its whip-like filaments. The heterocyst has become organ of attachment.

The living cell attains its fullest development in the green Algæ (*Chlorophycæ*) the protoplasm being differentiated into nucleus and plastid. This group of plants is well worth special study as showing distinct evolutionary tendencies. As they do not come in our syllabus we must pass over the interesting multinucleate (or cœnocyctic) forms of the *Vaucheria* family, and the free swimming colonies of the *Volvox* order with their wonderful co-ordinated ciliary movements. Students should look these up for themselves. Examples are given of the filamentous forms with uninucleate cells, because these illustrate the development of sexuality. Fig. 12 shows *Ulothrix zonata*, which prefers to grow in fresh water constantly renewed, being usually attached to stones, etc., though it can live quite well floating on surface. Each cell of the slender filaments (about one-thousandth of an inch in diameter) contains a single girdle-like chloroplast, which hides the nucleus. The chain of cells increases in length by formation of transverse walls in any cell throughout its length. Propagation of new plants is "asexually" by means of zoospores, and any cell of filament may become mother cell of one to eight zoospores with four cilia. These, which are sensitive to light, escape through hole formed in cell wall and swim actively about, avoiding excessive light or darkness. At end of swarming period they avoid light and come to rest on substratum, where they become attached by their colourless pointed end, secrete a cell wall and grow directly into new *Ulothrix* plant. Instead of four ciliated zoospores, the cell contents may divide into naked protoplasmic sexual elements with only two cilia, which "conjugate" in pairs, with similar "gametes" swarming from another cell of the same or another plant. This fusion of protoplasmic material from different cell units is called fertilisation. That there is a difference in these wandering gametes (planogametes) is shown by the fact that those from the same cell will not fuse together or conjugate. The zygospore (zygon=yoke) resulting from sexual union does not develop directly into a new *Ulothrix* plant, but gives rise to a distinctive unicellular plant (see figure 12) which becomes a zoosporangium or sporophyle, an indication of an "alternation of generations" so prominent in mosses and ferns.

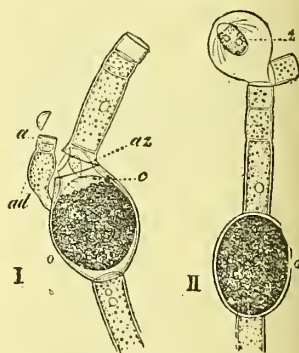


FIG. 13.
FERTILISATION IN *Edogonium*.

I. Portion of filament of *Edogonium ciliatum*, with egg cell in act of fertilisation. *ad* is attached dwarf male plant, the uppermost cell of which the male gamete (*az*) has escaped. II. Shows fertilised egg (oospore, *o*) and a sexual zoospore (*z*) escaping.

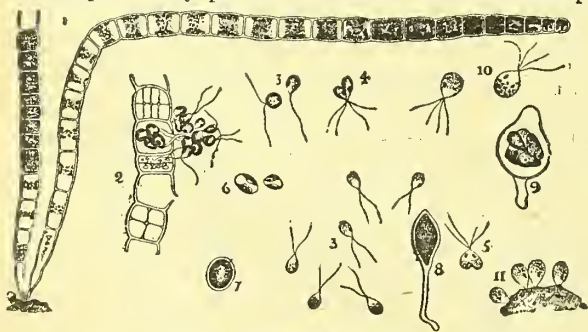


FIG. 12.—*Ulothrix zonata*.

1. Two filaments of plant. 2. Escape of gametes. 3. Gametes separated. 4. Gametes beginning to pair. 5. Gametes fusing. 6. Young zygospores. 7. Mature zygospore. 8. Germinating zygospore. 9. Formation of zoospores from embryonic plant. 10. Free zoospores. 11. Zoospores attached to substratum.

tion. Rate of growth and reproduction is extraordinarily rapid under favourable conditions (sudden choking of sluggish streams and ponds), but they form delicate morsels of food for small predatory animals often not much larger than themselves, this being one of Nature's methods of balancing effects. Some slight protection is afforded by association into colonies held together by mucilage. As arrangement of individuals becomes more regular the colony passes over into an individual in which each cell

Marriages

Notices for insertion in this column must be properly authenticated.

JOHNSTON—GIBSON.—At Malone Presbyterian Church, Belfast, on April 18, by the Rev. F. C. Gibson, B.A. (uncle of the bride), assisted by the Rev. S. G. McConnell, B.A. (cousin of the bride) and the Rev. R. Davey, B.A., William John McMurray Johnston, F.A.I., son of the Rev. T. C. Johnston, D.D., to Annie Stormont, elder daughter of Mr. Samuel Gibson, J.P., chemist and druggist, Belfast and Summerhill, Dunmurry.

REES—RUTTER.—At the Congregational Church, Ealing Green, London, W., on April 14, David Morgan Rees, chemist and druggist, 62 South Audley Street, London, W.1, to Dora Lewis Rutter, daughter of Mr. Rutter, West Ealing.

Deaths

ADAMS.—At St. Helier, recently, Mr. Edmund Tapley Adams, chemist and druggist, 53 King Street, aged seventy-five. Mr. Adams, who passed the Modified examination of the Pharmaceutical Society of Great Britain in 1869, succeeded Mr. H. Miller in business, after being his assistant for some years. He carried on till a few weeks ago, when he sold it on account of failing health. Mr. Adams was very popular in Jersey, and the funeral was largely attended.

BALLARD.—At Faringdon, on April 8, Mr. Edwin Ballard, chemist and druggist, aged seventy-four. Mr. Ballard was in business before August 1, 1868.

GRAY.—At 23 Nicoll Road, Harlesden, London, N.W., on April 19, Mr. John Frank Gray, late of Evans, Gray & Hood, wholesale drug and spice merchants, 13, Fish Street Hill, London, E.C.3, aged about fifty-six years. The late Mr. Gray, who was well known in the drug trade and on 'Change, commenced business in 1897 in conjunction with Mr. A. H. Evans and Mr. William Hood, the members of the firm having all been associated with the house of Fergusson & Forster.

HAYLES.—At 10 Houghton Place, London, N.W.1, on April 8, Mr. Alfred Hayles, retired chemist and druggist, aged eighty-four. Mr. Hayles had for many years past identified himself with religious and philanthropic movements; he was President of the Calvinistic Protestant Union and treasurer of the Aged Pilgrims' Friend Society. He was much esteemed locally as one of the oldest residents of West St. Pancras.

HUGHES.—At Llanberis, recently, the Rev. Richard Hughes, chemist and druggist, formerly in business in High Street, Bangor, aged eighty-nine.

KEMPSTON.—On April 23, Mr. Theodore Kempston, chemist and druggist, 369 Oxford Street, London, W.1. Mr. Kempston qualified in 1890, and after further experience in the West-End took a business in Oxford Street. Not long since he acquired an agency for a well-known series of perfumes, which he made the basis of an attractive display at last year's Manchester Chemists' Exhibition. He leaves a widow.

SHOLL.—At University College Hospital, London, W.C.1, on April 21, Mr. John Paul Cock Sholl, chemist and druggist, 77 Vicarage Road, Watford, aged forty-eight.

Wills

MR. ALFRED DUNCOMBE BROWN, Ph.C., 17 Outram Road, Addiscombe, Croydon, who died on February 9, left estate of the gross value of £1,443, with net personalty £1,397.

MR. JOHN CAPE BEVAN MORRIS, J.P., chemist and druggist, 2 High Street, Brecon, who died on February 4, left estate of the gross value of £3,222 11s. 1d., with net personalty £1,998 0s. 1d.

MR. WILLIAM HALL FLOOD, chemist and druggist, 385 Durnsford Road, Wimbledon, S.W., who died on February 25, left estate of the gross value of £1,988 2s. 10d., with net personalty £1,141 3s. 10d.

MR. GEORGE MILLER, herb grower and distiller of essential oils, Beddington Corner, Mitcham, Surrey, who died on June 13, left property of the value of £23,098 1s. 6d., the net personalty being £6,012 8s. 6d.

MR. WILLIAM JOHN GARDAM, chemist and druggist, The Pharmacy, Clock Face Road, Clock Face, near St. Helens, who died on November 5 intestate, left estate of the gross value of £2,177 14s. 9d., with net personalty £269 15s. 1d.

MR. WILLIAM MASON VARLEY, chemist and druggist, 182 Lee Lane, Horwich, who died on September 9, left estate of the gross value of £3,660 15s. 6d., with net personalty £3,631 6s. Probate of the will has been granted to his son Edgar Varley.

MR. FREDERICK JOHN CASEY, chemist and druggist, 28 Borrowdale Road, Sefton Park, Liverpool, who died on January 4, left property of the value of £11,365 17s. 9d. gross, and £11,134 13s. 1d. net. Probate is granted to Mrs. Casey, the widow. He gives £500 to his wife, and the residue of the property in trust for her for life, and then in trust for his two children.

MR. WILLIAM HERBERT BLAYNEY, chemist and druggist, 7 Princess Street, Haslingden, Lancs, who died on January 28, and whose will is proved by Mrs. Blayney, the widow, and Richard Halstead, of Clifton House, 198 Blackburn Road, Haslingden, has left £5,857 14s. 10d. In the event of his father surviving him he gives to him 55 Deardengate, Haslingden. All his other property he leaves to his wife for life, and then for his children.

Personalities

MR. H. C. H. OLIVER, chemist and druggist, West Malling, has been elected chairman of the Parish Council.

MR. R. WHITELEY BROWNLOW, J.P., pharmacist, Melton Mowbray, has been elected chairman of the local urban district council for the fifth time.

AMONG recent elections as overseers of the poor are those of Mr. T. O. Davies (T. O. Davies, Ltd.), Cefn, Ruabon, and Mr. J. Wynne Williams, chemist and druggist, Mold.

MR. J. R. HAMERTON, elder son of Mr. James Hamerton, Ph.C. (Wright, Layman & Umney, Ltd.), has obtained the qualification M.R.C.S., L.R.C.P., at the recent examination of the Conjoint Board. Dr. Hamerton is continuing his studies at St. Bartholomew's Hospital.

THE Royal Court of Jersey has granted a preliminary act of separation as regards property to Mr. J. R. Le Poidevin, chemist, 59 Bath Street, St. Helier, and his wife. The household furniture and other mobiliary effects, together with the goodwill and stock-in-trade of the chemists' business carried on by the husband at that address, become the property of his wife.

MR. L. K. OSMOND, managing director of Osmond & Son, Ltd., manufacturing chemists, Grimsby and Spalding, has been elected chairman of the Grimsby Board of Guardians. On taking the chair he made a strong appeal for economy, illustrating his remarks by statistics showing the growth of poor-law expenditure in recent years. Mr. Osmond is also a member of the Lindsey County Council, the Grimsby Corporation, and the Rural District Council.

MR. F. W. ARMSTRONG, chemist and druggist, the new vice-chairman of Seaham Harbour Urban District Council, of which he has been a member four years, was born at West Stanley, and served his apprenticeship with Mr. J. Brown, Chester-le-Street. After experience at Newcastle, Tunbridge Wells and Ipswich, Mr. Armstrong returned to Chester-le-Street, migrating sixteen years ago to Seaham Harbour. Mrs. Armstrong is well known as the promoter of amateur dramatic performances for charity.

Trade Notes

"LITTO" ALEPECOID, a remedy for alopecia, is manufactured by Litto Laboratories, 2 Newington Green, London, N.1.

MONKEY STROP.—Douglas Kirby & Co., Eastgate House, Gloucester, offer the monkey strop for safety-razor blades. A special offer is made of six strops with show stand.

BRÖDR. AARSAETHER A/S., Aalesund, Norway, were awarded the Grand Prix for the purity of their cod-liver oil at the World's Fair, held at Rio de Janeiro recently.

JAMES CARRIER CYCLES.—The James Cycle Co., Ltd., Greet, Birmingham, offer carrier cycles from £12. The company invites application for catalogue of cycles and tricycles.

PALMOLIVE SOAP.—The Palmolive Co. (of England), Ltd., 21-23 Eagle Street, High Holborn, London, W.C.1, ask retailers to send for particulars of a postcard coupon scheme which they have devised.

OWTAZ-IN Co., 50-51 Fore Street, London, E.C.2, have taken over the sole agency for Great Britain and Ireland for the surgical and rubber manufactures of Otto Dillner, Leipzig. Samples of the goods are on show.

SPONGE IMPORTATION.—The advertisement in this issue of I. & M. Cohen, The White House, 53-4 Houndsditch, London, E.1, has an illustration of the Cohen schooner "Welcome," which was engaged in the business of sponge importation in 1864.

MERCK'S CHEMICALS.—E. Merck, Darmstadt, sends us a copy of his March catalogue of pure chemicals, guaranteed reagents, etc. Giving prices in English currency, the catalogue has been thoroughly revised and brought up to date, and contains everything that is manufactured by the firm.

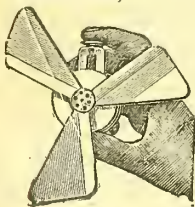
INSULIN.—The British Drug Houses, Ltd., 16-30 Graham Street, City Road, London, N.1, send us a sample package of insulin, to show us the style in which it is sent out. An amber bottle is used, and closed with an airtight rubber cap. The label gives details of the units contained in the quantity in the bottle, also the date of issue.

QUELCH'S AGENCIES.—Henry C. Quelch & Co., 4 and 5 Ludgate Square, London, E.C.4, have been appointed agents for Great Britain and the Irish Free State for Boncilla beauty preparations, Elcaya crème, Packer's tar soap, and Cutaneous Charm, and Lifesavers (candy mint). The wholesale and retail prices are given in Messrs. Quelch's advertisement in this issue.

FRENCH ESSENTIAL OILS.—Mr. K. B. Mavlinkar, Beauchamp Street, London, E.C., has been appointed agent in the United Kingdom for the "Matières Premières pour Parfumerie," Cannes, France (growers and distillers of French essential oils), which has been formed by the association of M. Emil Gaultier with M. Ernest Lavad. The products include the oils of lavender, French geranium, basil, rose, jasmin, tuberose, pennyroyal, etc.

WIRELESS SUPPLIES.—A nicely produced catalogue of wireless apparatus and accessories is being sent out by Houghtons, Ltd., Ensign House, High Holborn, London, W.C.1, who are the sole agents to the photographic and drug trades for the products of C. F. Elwell, Ltd. Messrs. Houghtons are prepared to supply dealers in Elwell wireless apparatus with circular letters suitable for local distribution and printed on the chemists' own notepaper at a small charge.

LA BRISE FAN.—Ward & Goldstone, Ltd., Pendleton, Manchester, advertise in this issue a handy form of automatic pocket fan. The form of the fan is shown in the illustration. It is set in motion by pressing a button, which causes the blades to rotate at high speed and create a draught. The blades are made of imitation ivory, as is also the round box containing the spring. It is an attractive novelty, which should sell readily. The retail price is 3s. 6d.

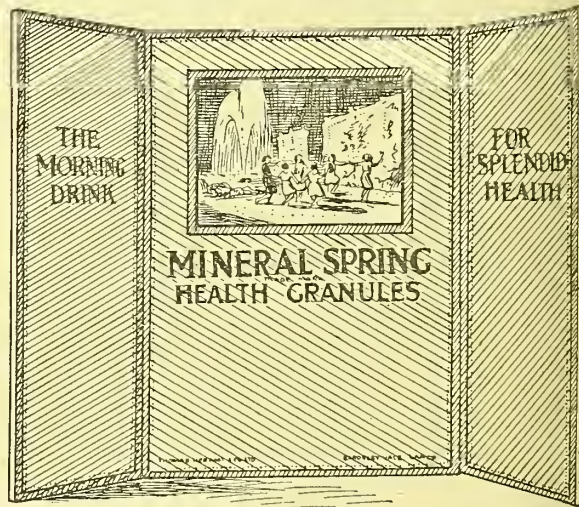


DENTABATH.—Tiffin's Dentabath, Ltd., 37 King Street, South Shields, introduce a novel antiseptic bath for artificial dentures. This consists of a handsome round box of aluminium fitted with a lid. On the bottom of the inside of the box is a layer of plaster medicated with antiseptics, such as thymol, which are especially adapted for use as oral antiseptics. The procedure adopted by a user of the Dentabath is to clean the artificial teeth, then place them in the bath, and cover with cold water. This forms an antiseptic solution which effectually sterilises the teeth and mouth. The Dentabath retails at 4s. 6d., the price being protected under the scheme of the Proprietary Articles Trade Association. The London wholesale distributors are Warrick Bros., 6 Nile Street, City Road, London, N.1.

CRUSADER HOT WATER BOTTLE.—The Crusader Rubber Co., Ltd., 62 London Wall, London, E.C., have sent for our inspection a sample of the Crusader rubber hot-water bottle, to which attention has been called in advertisements in the C. & D. The chief feature of the bottle is the way the neck and handles are attached to the bottle. Red rubber reinforced with cotton fabric is used in making the bottle, and the seams are made under hydraulic pressure. The size of the bottle is 9 by 12 in.



MINERAL SPRING HEALTH GRANULES.—Thomas Kerfoot & Co., Ltd., Bardsley Vale, Bardsley, send us a set of the display matter supplied to chemists who sell Mineral Spring Health Granules. There are several varieties of



showcards, and the large screen (shown in the illustration) for use as a window-display. The picture on the window-display screen is in colours. The sets of display matter are being supplied in rotation, and the supply is limited.

Information Department

INFORMATION WANTED

- | | |
|---|---|
| D/184. Ammonium tartrate | S/234. Hamilton's Azo Phosphor |
| A/204. Antimoth | S/234. Menfiline stain remover agents) |
| S/243. Austin's inhaler | A/174. Mercuranum |
| B/254. Bactogen | H/244. Pinex bath fluid |
| S/234. Blue glass sputum flask with india-rubber cork | W/204. Semperform tablets |
| N/244. Detailles (of Paris) toilet goods | B/214. Thialion (London supply) |
| M/234. Effervescent Kouniss | B/254. Velvetine hair cream (Palmyra Co.) |
| M/234. Genoform (London) | |
| B/244. Icenia Perfume | |

Observations and Reflections

By Xrayser II.

The Paper and Discussion

on the chemical tests and standards of the B.P., 1914, at the Pharmaceutical Society's evening meeting of April 17, will not increase our respect for the Pharmacopœia in any of its aspects, and least of all as it is used in relation to the Sale of Food and Drugs Acts. The fact that it was never intended as a commercial standard is in the mouth of its compilers a valid excuse for its unfitness, but this only emphasises the absurdity of so using it. I am surprised that the writers of the paper, after insisting on these facts, should propose to increase the evil by making the Codex a supplementary standard. Whatever may be said of the Pharmacopœia in this respect may be said of the Codex too, and a good deal besides. It covers a much wider field, and includes a good many articles which are only substitutes for others. That the latter, or any preparation which the parties responsible for the book should include in future editions, should be made to conform to its requirements is an unwarrantable interference with private rights.

"Pharmacy for the Pharmacist"

says Mr. Hines, and we are all perhaps only too ready to accept this as our "creed." It is neither a very lofty nor a very helpful one, and in holding it we put the cart before the horse. Pharmacy is not for the pharmacist, but the pharmacist is for pharmacy. It is what we make it, and we make it what it is not for ourselves but for the public weal. *Sic vos non vobis.* Mr. Hines will doubtless agree; it is a proof of the "nebulous state" of the pharmaceutical profession that he puts the case as he does, but to put it so is more likely to defeat than to help our legitimate endeavours to raise the profession. It tends to give the impression that in tackling the three problems which Mr. Hines rightly says are the most pressing it is the interest of the pharmacist rather than that of pharmacy that we are most concerned to defend. The two are, of course, so closely connected as to be virtually inseparable; but, however, as individual pharmacists, we may resent the unfair competition of unqualified proprietors, the degrading conditions of Insurance dispensing, or our equally degrading subservience to the nostrum huckster, we cannot effectively fight any of them on personal grounds. The first-named is the most difficult to deal with, because as regards it we are most affected, or liable to be thought affected, by motives of self-interest; but that is a suspicion against which we should always be on our guard, not only in this but in all our relations—especially those of us who aspire to a place in the Council of the Society whose strength as our representative is the fact that it exists by statute in the public interest. Our "creed" should be, not "pharmacy for pharmacists," but "Only pharmacists for pharmacy."

Mr. Tulliver,

it will be remembered, desired a good education for his son in order that he might be able to wrap up his thoughts in words that are not actionable. I have not seen this view of the advantages of education pressed by supporters of the movement for the higher education of pharmacists; but there is a good deal to be said for it, and I have reason to believe that it would have force with some who have hitherto been anything but enthusiastic in furtherance of the Society's policy. They find themselves in this difficulty: it has become quite a common occurrence for local associations to entertain prominent members of the Council at dinners or other social functions, and reforming spirits are eager to seize the opportunity thus offered of impressing their views upon that body, of bringing home to its members its faults and failings—in short, as Mr. Hines said the other day, of "gingering it up," and, if possible, of directing its energies into more useful channels. But they are checked by a sense of the consideration due

to a guest; they fear to seem discourteous; they wish to combine criticism with compliment; and they lack the verbal felicity necessary to the grateful administration of the pill which the case calls for. There used to be a story told of an Anglesey man who wrote to a certain firm in these terms: "Dam you, Mess. Evans, why haf you not sent off my goods? Yours affectionately, John Jones." There is a similar conflict of feeling in the minds of the men of whom I am thinking, but the crude expressions of a person with an imperfect knowledge of English, though excusable sixty years ago, are not possible for them. Personally, I doubt whether the matriculation standard for the Preliminary would quite meet their case, but I venture to throw out the hint in support of the Society's educational propaganda.

Compliment and Criticism

appear to have been pretty equally blended in the after-dinner speeches at the Connaught Rooms, on April 12, your report of which reached me after the above note was written. The President attributes "just a little devil" to the criticism he gets from the Northern heights, but Lucifer has from time immemorial had his habitation "on the sides of the North," and a spice of his temper may, perhaps, be held to account for the nipping and eager air of that quarter without prejudice to its bracing quality. However that may be, it is certain that the Northern Association has usually been in the van of progress, and Mr. Neathercoat was a little superfluous in urging it to set the pace for other branches. Mr. Wolff was much nearer the mark in saying, with a salutary touch of sarcasm, that the Association's only fault is that it is about three years ahead of the Society. Probably this "fault" has something to do with the formation of the branch which, as Mr. Downing neatly put it, delays to sprout. It may be the Council's purpose not to "catch up" with North London, but to slow down North London to its own pace. This, at all events, is a likelier explanation than that the branch is intended to stimulate the "galloping" North to a still faster pace.

"About St. George,"

(says an old rhyme) when blue is

worn,

The blue Harebells the fields adorn," which is enough of itself to identify the harebell with the wild hyacinth. This is not, perhaps, of much importance except to lovers of Shakespeare and the poets and herbalists of his time, who are in the same tale, but it is worth noting as a protest against false etymology, which would make "harebell" a corruption of "hair-bell" or "airbell" (!), and apply it to *Campanula rotundifolia*. St. George is an extremely mythical saint, and why the colour blue should be associated with him I cannot say. That the harebell flourishes "about" April 23, which is his day as well as Shakespeare's, is sufficient to account for its dedication to him. It can, I suppose, hardly be to it that we owe the phrase "true blue," though Browne (of Tavistock) says, "The Harebell, for her stainless azured hue, Claims to be worn by none but those are true."

The plant was never much used in medicine, though Gerard attributes several virtues to it.

A STUDY IN EVOLUTION.—The evolution of whistling as an adjunct to pharmacy may be indicated as follows:—"Whistling is a most abominable custom, only practised by blackguards—and both that and wearing your hat are customs disrespectful to strangers and to your employer."—"Tirocinium Medicum," 1812.

"As I went out he retired, cheerily whistling. Although one feels this is not quite the thing, it is rather a pleasure to meet with an assistant so cheerful."—"Veteran" in the *C. & D.*, April 7, 1923.

"Any assistant failing to whistle all day and every day is liable to instant dismissal."—Extract from the shop rules of Blank & Co., chemists, Brisktown, in the year 2034.

Send your enquiries, large or small,
for Pills and Tablets to

Established 1839

Arthur H. Cox & Co. Ltd.

MANUFACTURING CHEMISTS
BRIGHTON

The ORIGINAL
MAKERS OF TASTELESS PILLS

*Harpic reaches the drain
behind the lavatory
bowl.*

*There is 5³/₄ d. profit every time
you sell a 1/5 tin*

HARPIC MFG CO. DEPT 21, C.K. AVENUE RD. CAMBERWELL S.E.5

M. NAEF & Cie

(late CHUIT, NAEF & Cie)

GENEVA

Specialities in

SYNTHETIC PERFUMES

of exceptional quality.

BOUVARDIA	MUGUET
CYCLOSLA	NARCISSUS
DIANTHINE	
FL. d'ORANGERS	ANOZOL
GARDENIA	(SOLVENT)
IRALIA	PHENETHYLOL
LILAFLEUR	and all other
JASMINIA	Synthetic materials
SYLVESTRAL	for Perfumers and
	Toilet Soap makers.

Sole Agents:

P. SAMUELSON & CO.

27, Mincing Lane, London, E.C.3.

WHO ARE ALSO DIRECT IMPORTERS OF

**MUSK, CIVET, and
all ESSENTIAL OILS.**

Telephone: Minories 1660. Telegrams: "Moschus, Fen, London."

S.V.R.—Absolute Alcohol

AND

CHEMISTS' WINES.

Jas. Burrough Ltd. D.1 Cale Distillery, Hutton Rd.
LAMBETH, S.E.11.

Editorial Articles

Testing Dispensing

V.

OUR endeavour this week is to show that custom has attached various practicable values to the degree of accuracy obtainable in operations of weighing and measuring. "Absolute accuracy" is a fetish of ignorance, as anyone conversant with the mathematical meaning of the term absolute must know that its attainment is an impossibility. The history of human endeavour shows ever-increasing ingenuity in restricting range of error for two reasons: To advance science and to prevent fraud. Many types of accuracy can be distinguished, but the following grades are exemplified below:—

- Mathematical accuracy: Theoretical only.
- Scientific accuracy: 0.1 per cent.
- Analytical accuracy: 1 per cent.
- Commercial accuracy: Fixed by trade usage.
- Legal accuracy: Fixed by legislation, custom or contract.

MATHEMATICAL ACCURACY is a pure abstraction because it has no "real" limitations. A thing which becomes infinitely small disappears and is nothing; the whole universe cannot be infinitely great. On Einsteinian views even "length" varies according to the manner in which it is viewed. The mathematical mill only turns out what is put in. If one starts with an incorrect assumption the result is wrong, though the working is right. The "rigorous" mathematical analysis so dear to physicists is often vitiated by the limiting condition being as absurd as it is ideal. The apparent mass (or inertia) of an electron has been determined with an accuracy of one part in one thousand, but even mass on energy basis is inconstant; the apparent mass increases enormously when its velocity approaches that of light.

SCIENTIFIC ACCURACY.—When physicists leave the dreams of theory for the pursuit of practical phenomena it is necessary to adopt some system of unit values. That used in science is known as the centimetre-gramme-second system of units. The evolution of this system is interesting. Originally the standards of length, mass and time were intended to bear "exact" relationship to the earth's surface and the period the earth takes to revolve round the sun. Below we see these "scientific" units become just as arbitrary as the British yard, pound and gallon.

The centimetre (unit of length) is now defined as the distance between two lines engraved upon the polished "neutral web" surface of a platinum-iridium bar of a nearly X-shaped section called the International Prototype Meter. This is a copy of the original Borda platinum standard (the mètre des archives), legalised in 1795 by the Republic of France. It was intended to be one ten-millionth of the earth's quadrant through Paris. Actually this value was over 2 parts out in 10,000, and the quadrant itself is changing. The National Prototype metres are copies of the International Prototype meter, made about 1889, and distributed by lot to the different governments, so that these

took their chance as to error in a copy of a copy of the original metre.

The gram is one thousandth of the International Prototype kilogram, a copy of the original Borda kilogram intended to have the same mass as a cubic decimetre of pure air-free water at its temperature of maximum density. The error is very nearly 3 parts in 10,000.

The second may be defined simply as $1/86,164.09$ of a sidereal day, but the true period of rotation is owing to precession, actually about $1/100$ second longer than this. The second is usually regarded as $1/(24 \times 60 \times 60)$ of a mean solar day, which is the somewhat variable interval between two successive returns of the sun to the meridian.

The above illustrates the impossibility of being "exact." The degree of accuracy attainable is best judged from the determination of atomic weights. The International Table of Atomic Weights (for 1922) are the result of innumerable investigations, using every known refinement in science. Recent physical methods provide a check on the accuracy of the determination, which is 0.1 to 0.2 per cent., as given in the International Table of Isotopes for 1923. This same table shows that elements may be simple or complex. Chlorine, for example, contains isotopes with masses 35 and 37 relative to the simple element oxygen. It is known that the atomic weight of lead varies according to its origin as natural lead or radio lead. The progress of science supports the view that nearly all true atomic weights are whole numbers on the oxygen basis, and at the same time proves the actual "impurity" of many "elements."

ANALYTICAL ACCURACY.—In methods of analysis weighings are not reduced to vacuo neither are volume measurements of liquids corrected to standard temperature and pressure. This limits the range of accuracy to about 1 per cent., even when the method is reliable and technique all that could be desired. Analysts are apt to assume a higher degree of accuracy, because control or check analyses show less variation, but this is usually due to the same errors repeating. It is recognised that a margin of error in assay of unknown quantity is greater than when a preliminary rough estimation has been made. Below are given extracts to illustrate that even the simplest operations and titrations are not so straightforward as they seem.

The following table shows the loss of iodine due to starch indicator:—

N/10 As_2O_3 sol.	Reading with 1.25 c.cm. of starch solution to a deep blue. Nearly N/10 I.	Iodine reading calculated. Nearly N/10 I.	Error
c.cm.	c.cm.	c.cm.	c.cm.
5	5.23	5.14	0.09
10	10.37	10.28	0.09
15	15.50	15.42	0.08
20	20.70	20.56	0.14
25	25.85	25.70	0.15
30	31.00	30.84	0.16
35	36.12	35.98	0.14
40	41.20	41.08	0.12
45	46.39	46.26	0.13
50	51.54	51.40	0.14

The loss from this cause alone ranges from 1.8 per cent. with 5 c.c. of solution titrated to 0.28 per cent. with 50 c.c. In general, accuracy of 1 per cent. is not difficult to attain in comparative estimations, but it is quite a different matter on a single assay, where the error may be 10 per cent., as has been seen in legal cases.

Class A tests of the Meteorology Department of the National Physical Laboratory as applied to pipettes and burettes are:—

Ordinary pipettes are clamped vertically for test, and filled with water to a short distance above the mark. Water

is run out until the meniscus is on the mark, and the outflow is then stopped. The drop adhering to the tip is removed by bringing the surface of some water contained in a beaker into contact with the tip and then removing it without jerking. The pipette is then allowed to deliver into a clean, weighed vessel, held slightly inclined, so that the tip of the pipette is in contact with the side of the vessel. The pipette is then allowed to drain for $\frac{1}{4}$ minute after outflow has ceased, the tip still being in contact with the side of the vessel. At the end of the draining-time the receiving vessel is removed from contact with the tip of the pipette, thus removing any drop adhering to the outside of the pipette. To determine the instant at which the outflow ceases, the motion of the water surface down the delivery tube of the pipette is observed, and the delivery time is considered to be complete when the meniscus comes to rest slightly above the end of the delivery tube. The $\frac{1}{4}$ -minute draining time is counted from this moment.

Burettes and graduated pipettes are clamped vertically for test, and filled with water to a short distance above the zero mark. Water is then slowly run out until the meniscus is exactly on the zero mark. The drop adhering to the tip is then removed by bringing the tip into contact with the inside of a glass beaker. The instrument is then allowed to deliver freely, i.e., in the case of burettes, with the stopcock fully open, into a clean, weighed vessel. It is necessary, however, to arrest the full flow of liquid in time to obtain control over the final movement of the water surface and to bring the meniscus to rest accurately on the line to be tested. The instrument is therefore allowed to deliver freely until the water surface is approximately 1 cm. from the line to be tested. The rate of outflow is then reduced and the motion of the water surface brought under control, so that an accurate setting can be made on the line in question. No period of waiting for drainage is allowed. The drop adhering to the tip, after the setting has been made, is removed by bringing the side of the receiving vessel into contact with the lip.

The tolerance allowed on pipettes ranges from 0.3 per cent. on 2 c.c. pipette to 0.03 per cent. on 500 c.c. pipette, but these only apply when the above procedure is carried out and the pipette is *chemically clean* (with solution of potassium bichromate in strong sulphuric acid).

COMMERCIAL ACCURACY.—The regulations for Class B tests of the National Physical Laboratory refer to "The Inspection of Graduation of Glass-ware of Commercial Accuracy." These have a tolerance of approximately double that of Class A glass-ware. The vessels in the latter class are described as of "the highest accuracy," but those in Class B are "intended to possess only commercial accuracy." The Weights and Measures Regulations (1907) under the Weights and Measures Acts of 1904 gives tables of errors permissible with weights and measures. In these, retail chemists and druggists are included in the first class of special trades who must use Class A or Class B weighing instruments. The limits of permissible error are as follows:—

IMPERIAL WEIGHTS
ERRORS IN EXCESS ONLY

Avoirdupois			Apothecaries	
—	Iron	Other than iron		
14 lb. ..	24 grs.	12 grs.	10 ounces troy ..	0.7 grain
7 " ..	16 " "	8 " "	8 " " ..	0.6 " "
5 " ..	14 " "	7 " "	6 " " ..	0.5 " "
4 " ..	12 " "	6 " "	4 " " ..	0.4 " "
2 " ..	8 " "	4 " "	2 " " ..	0.3 " "
1 " ..	4 " "	3 " "	1 ounce ..	0.2 " "
8 oz. ..	4 " "	2 " "	4 drachms	
4 " ..	4 " "	2 " "	2 " "	
2 oz. & 1 oz.	—	1 gr.	1 drachm	.. 0.1 " "
8 drs. to $\frac{1}{2}$ dr.	—	0.5 gr.	2 scruples	.. 0.08 " "
			1 $\frac{1}{2}$ " ..	.. 0.07 " "
			1 scruple	.. 0.06 " "
			$\frac{1}{2}$ " ..	.. 0.05 " "
			6 grains	.. 0.04 " "
			4 " "	
			3 " "	.. 0.02 " "
			2 " "	
			1 grain	.. 0.01 " "
			$\frac{1}{2}$ " "	

MEASURES.

Apothecaries Graduated Glass
Cylindrical and Conical Shape

Approximate internal diameter of measure at the graduation tested	Error in excess or in deficiency
Inches.	Minims.
4	25
3½	21
3	18
2½	14
2	11
1½	9
1½	7
1½	7
1½	4
1	3
¾	2
¾	1
¾	½

Metric Glass Measures
Cylindrical and Conical Shape

Approximate internal diameter of measure in millimetres at the graduation tested	Error in excess or in deficiency
mm.	c.c.
100	1
90	1
80	0.8
70	0.8
60	0.6
50	0.6
40	0.4
30	0.3
20	0.15
10	0.05

On glass flasks and burettes only one-half the above amounts of error shall be allowed.

BEAM SCALES

Class A			Class B		
Capacity of machine	Sensitive-ness when fully loaded	Greatest error allowed either in excess or deficiency when fully loaded	Capacity of machine	Sensitive-ness when fully loaded	Greatest error allowed either in excess or deficiency when fully loaded
1 oz.	0.05 gr.	0.1 gr.	1 oz.	½ gr.	½ gr.
1 lb.	0.1 gr.	0.2 gr.	8 "	1 "	1 "
7 lb.	0.5 gr.	1.0 gr.	1 lb.	1 "	1 "
56 lb.	1.5 gr.	2.0 gr.	2 "	1½ "	2 "
			4 "	3 "	4 "
			7 "	4 "	6 "
			10 "	6 "	9 "
			14 "	8 "	12 "
			28 "	15 "	22 "
			56 "	25 "	40 "
			112 "	1½ drs.	2½ drs.
			224 "	2½ "	3½ "
			above 2 cwt.	add ½ dr. for each cwt. of capacity	add 1 dr. for each cwt. of capacity

It will be seen that the smaller the weight or measure the greater is the permissible inaccuracy.

LEGAL ACCURACY may be defined as the difference between unavoidable error and errors due to carelessness or fraudulent intention. The following abstracts from the Weights and Measures Act Regulations will show the allowable deviations:—

11. All weights, measures, and instruments shall be tested in a clean condition, and, if necessary, the inspector shall call upon the owner or user to clean them.

12. Subject to the provisos at the end of this Regulation, the inspector, on inspection, shall obliterate the stamp—

(b) on a measure of length, if the deficiency or excess exceeds four times the amount allowed on verification;

(c) on a measure of capacity (other than an apothecaries measure), if the error in deficiency is more than half that allowed in excess on verification, or if the error in excess is more than that allowed on verification; and, on apothecaries glass measures, if the error is greater than that allowed on verification;

(d) on a weight, if the error in deficiency is more than half that allowed in excess on verification, or if the error in excess is more than that allowed on verification;

(g) on a weighing instrument, if the error exceeds twice, or if the deficiency in sensitiveness exceeds three times the amount allowed on verification;

Provided that where the incorrectness of a weight, measure or instrument exceeds the limit laid down in this Regulation, but is not, in the inspector's judgment, such as to require the immediate obliteration of the stamp, he shall leave with the trader a notice calling on him to have the

weight, measure or instrument corrected within a stated period, not to exceed in any case 28 days, and shall obliterate the stamp if the correction has not been made within such period.

Provided, further, that where in a weighing instrument the incorrectness is due merely to a need for re-balancing the instrument, the stamp shall not be defaced.

Finally, as showing the difficulty of eliminating the personal factor, we give the following abstracts from the instructions which the inspectors receive. It will be noted that these apply to persons who have had special training and experience in their duties.

Liquid Measures of Capacity.

42. Where the capacity of the standard is defined by the brim, the inspector should make sure that it is exactly full, neither more nor less, by passing a glass strike completely over it.

After pouring (or in the case of some of the larger measures transferring by a siphon) the contents of the standard as completely as possible into the measure under verification, the water that still remains should, where great accuracy is required, be taken up by means of a pipette and transferred to the measure.

When the contents of the standard have been emptied into the measure, a strike should again be used in cases of doubt or where great accuracy is required.

44. When testing apothecaries measures, it is advisable that they should be placed upon an adjustable stand, so that the graduations under observation may be brought into line with the inspector's eye.

45. The errors on liquid measures of capacity may conveniently be estimated by means of displacement plungers, the volume of which has been carefully fixed.

45. In addition to glass metric measures graduated 4° Centigrade, measures graduated at 15.° Centigrade or 60° Fahrenheit may also be verified for pharmaceutical or chemical purposes, or for volumetric estimations.

Weights.

54. Before proceeding to test weights, it should be ascertained that they are properly denominated and that their condition conforms to the requirements of the Regulations. The inspector should also see that his balance is in true equipoise and be satisfied as to its accuracy of adjustment. The capacity of the balance should be suitable to the size of the weight under test. Where a large number of weights are being dealt with, the inspector should, from time to time, satisfy himself that the equipoise of his balance has not been disturbed by an accumulation of dust, etc. It should also be noted that the balance is free from disturbing influences.

In the verification of weights, the weight may be compared directly with the standard, but the most accurate procedure is as follows:—

Place the standard in one pan.

Place a counterpoise (which may consist of any suitable material) in the other pan, so that the balance exactly indicates zero.

Remove the standard from the first pan and in its place put the weight to be compared.

If the balance does not remain at zero, add (unless the compared weight is found to have an error in deficiency) difference grain weights to the pan containing the counterpoise, to ascertain whether the compared weight is within the amount of error tolerated in excess.

It will be convenient in many cases to use counterpoises specially made and adjusted to the amounts of the various permissible errors.

When placing weights in the pan or when removing them from it, pan rests should be used.

At the risk of being accused of splitting hairs, we contend that we have shown conclusively from official documents that it is unreasonable to expect a chemist and druggist to attain mathematical accuracy in dispensing.

The Sugar Situation

THE awkward question of an adjustment in sugar values arising from an enormous increase in consumption, especially in the United States, and crop yields in most directions falling short of expectations, was already emphasised by the facts published in our issues of February 24 and March 3 last. There has since been a renewed steady advance, which carried prices during the past week to 5s. to 6s. per cwt. over the extreme level reached during the previous excitement in February last. Developments in the speculative market for "futures" have been the more sensational lately on account of the intervention of the United States Government and the institution of a suit against the Sugar Exchange aimed at the alleged "orgy of speculation," and viewed at Washington as the outcome of a conspiracy in restraint of trade and commerce. From the consumer's viewpoint a halt in the rise in the cost of sugar is very desirable, but the demand for raw sugar has been running in excess of current supplies, and if statistics are to be relied on the supplies for the next six months are by no means too plentiful. Certainly no blame attaches to the policy pursued by British refiners in putting up their prices again lately, as they were compelled to do so on account of the persistent advance in the cost of raw sugar. After a close survey of the international situation in sugar, it seems to be more generally recognised that the decision of the Chancellor of the Exchequer not to interfere with the duty was wise, on the theory that the consumer was not likely to derive any but a transient benefit from the remission. A reduction of 1d. per lb. would probably have encouraged the trade demand, and thus added the more force to the speculative operations in which American cliques have played so large a part since the beginning of this year. The run of demand on Cuban raw sugar was already intense in February last, when its c.i.f. cost, home ports, rose to 26s. 6d., after having been down to 10s. 6d. early last year, but the price has lately risen to about 30s. 6d. British cubes now stand at about 71s. 6d., compared with 66s. about two months ago, and American granulated has risen since February from 58s. 6d. to 65s. 6d. on the spot, duty paid. The wholesale cost of the latter to the grocer thus represents about 7d. per lb. Within the last few months retail prices have been raised $\frac{1}{2}$ d. to $\frac{3}{4}$ d. per lb. as a result of increased wholesale costs, the more general rates current locally being at the moment 7d. for ordinary granulated and 7 $\frac{1}{2}$ d. for lump sugar, and a further advance may ensue. The trouble with sugar is not so much, perhaps, the feared shortage over the remainder of the season as the fact that the world's markets have been chiefly dependent on Cuban resources to fill gaps in the absence of any great weight of supplies from other cane-growing countries, and this state of affairs, unfortunately, will probably continue at least for another few months. By that time the new Java crop will be available, and should ease the position somewhat. Meanwhile, there is not much prospect of relief, seeing that the trade are up against the strong forces behind the control exercised over the disposal of the moderate Cuban surplus. Greatly helped by the much heavier consumption, the position of American-Cuban "insiders" became the stronger within a period when the trade demand is usually on the increase and offers from other sources are of no special importance. Next to the Java crop in point of prospective relief, hopeful prognostications are made of the sowings for the next beet crops in the United States and also European countries, but possibilities in that respect will not have any important influences on the position until the second half

of the year is well entered upon. Some time back the total receipts at Cuban ports showed a large excess compared with the same period last year, but this excess has been lately diminishing, while the receipts in the last few weeks dwindled very considerably.

Admission of Medicines into France

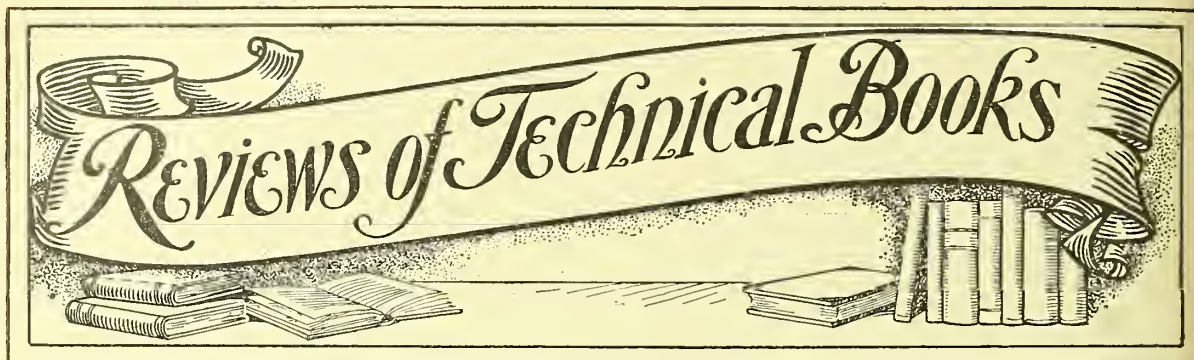
FROM the time when it transpired that the Association of French Manufacturers of Pharmaceutical Specialities had intimated to the corresponding Italian organisation (*C. & D.*, II., 1922, p. 535) that it proposed taking steps to obtain a relaxation of the provision forbidding the importation into France of non-official compounded medicines, we have kept our readers fully informed of the various Parliamentary stages through which the Bill has passed (*C. & D.*, II., 1922, p. 782; January 6, p. 21; February 17, p. 217). Following its adoption by the Senate and the Chamber of Deputies, the President of the French Republic promulgated the following law on April 19:—

Tariff No.	Designation of Goods	Basis of Duty	General Tariff	Minimum Tariff
316	Compounded medicines not specifically mentioned (1): 1. Included in an official pharmacopœia... 2. Not included in an official pharmacopœia, but bearing in distinct characters, in French, on the container itself and on the outer package the names and amounts of the active substances present (using customary designations and excluding chemical names and formulas), also the name and address of the manufacturer (2) ... 3. Not included in a pharmacopœia, and not bearing the above-mentioned declarations	Value Value	Per cent. 60 60 Prohibited	Per cent. 15 15

(1) Excluding serums, vaccines, viruses, toxins, and similar products.

(2) Medicaments coming within this description originating from countries which do not grant equivalent advantages to the importation of French medicines, are not admitted into France.

Henceforth, as a result of this important modification of No. 316 of the Customs tariff, foreign pharmaceutical products, hitherto rigidly excluded from entry into France, will be admitted on the basis of reciprocity, provided the active substances, and the amount of each, entering into the composition of such preparations are disclosed in French, and the name and address of the manufacturer are indicated on the label and wrapper. In passing, attention may be drawn to the fact that the law does not require the name of a French pharmacist to appear on the label, as has hitherto been obligatory in the case of foreign products of this category which could be imported into France under the old regulations. The important concession embodied in the new law resides in the fact that the designation "compounded medicines" refers not only to pharmaceutical specialities and proprietary medicines, but embraces all non-official and non-proprietary forms of drugs or chemicals, such as tablets, pills, solutions, ointments, suppositories, etc., containing either a single therapeutic agent, or prepared according to well-known formulas, but which are not included in a pharmacopœia. Compliance with the stipulations mentioned in the foregoing, and they are certainly less complex than those recently enforced in other countries, opens the French market to manufacturers of pharmaceutical products; Great Britain has never discriminated against the therapeutic preparations of our Gallic friends, and their presence on the shelves of British chemists is a tribute to French pharmacy.



Some Physico-Chemical Themes. By Alfred W. Stewart. D.Sc. 8½ in. by 5½ in. Pp. 419, with 5 plates and 41 diagrams. 21s. London: Longmans, Green & Co., 39 Paternoster Row, E.C.4.

Dr. Stewart, Professor of Chemistry in the Queen's University of Belfast, has published several very useful books dealing with advances in organic and inorganic chemistry, generally covering matters not yet admitted to text books. The present volume is intended to bridge the gap between text books of physical chemistry and the original literature of the subject. It is not intended for beginners, but for third-year or post-graduate students who have outgrown text books but desire to understand the trend of the most recent researches. Dr. Stewart has digested a large mass of material and presented it in an orderly series of articles. Among the subjects dealt with are double and complex salts, pseudo-acids and indicators, non-aqueous ionising media, colloids, the Brownian movement, absorption, catalysis, chemical affinity, emission spectra, the determination of Avogadro's constant, the Periodic Law and atomic structure. At the end is a useful chapter on bibliography and an appendix giving the latest tabulations of isotopes and isobares.

A Manual of Graphology, 1922. By Arthur Storey, 7 in. by 5 in. Pp. 124. 2s. 6d. London: William Rider & Son, Ltd., 8 Paternoster Row, London, E.C.4.

The author, who is a pharmaceutical chemist and brother of Mr. Fred Storey, President of the Chemists' and Druggists' Society of Ireland, Belfast, has described in an interesting and scientific manner how the character of a person may be deduced from the handwriting. Mr. Storey points out that the meanings attributed to the signs, although generally reliable, are not absolute, but so carefully does he give the reasons for the explanations that each one carries to the reader a certain amount of conviction with it. The psychology, physiology and mechanism generally of handwriting are explained in considerable detail, and the effects of various diseases, the emotions and nutrition are clearly outlined. There is indeed a wealth of information to be gleaned by students of the subject, who must also consider the kind of pen, paper and ink used. It will be a comfort for some people to learn that good handwriting is not a reliable criterion of intelligence. It is, however, "an indication of the cultivation of the automatic order of the mind." The indications of the business or profession forms the subject of an entertaining chapter, and another one equally interesting is on "Autographs," where signatures of famous people are given with delineations. In the final scheme of character reading there are thirty-seven pages to go through, which is perhaps enough to daunt any but the most enthusiastic student. This book of Mr. Storey's, however, is a great stimulant to the latent interest which many have (and pharmacists especially) in handwriting. The work is profusely illustrated.

Selling Own Goods. By D. C. O'Connor. Pp. 166. 7s., post free. Boston, U.S.A.: The Spatula Co.

Mr. O'Connor is known as the author of several works, notably "Commercial Pharmacy," a valuable contribution to drug-trade business knowledge. A considerable

part of the present volume is in dialogue form between salesman and customer. It must be admitted that some of the dialogues are lacking in that quality which would appear necessary to impart initial confidence to the buyer. This, however, depends largely upon personality, which even the best dialogue cannot impart. The selling of one's own goods is always liable to be misconstrued; and the author is at considerable pains to point out that a customer's request must always be respected and no supplanting attempted. He suggests that the essential problem is how to reach the necessary gross profit by the sale of the composite lines, of varying profit, many below the margin of safety, which constitutes the pharmaceutical turnover. The method he outlines is to have a limited number of "own proprietaries," which should possess a reasonable advantage in some respect or other. It thus becomes possible to turn the current of sales into growing and remunerative channels. There is included also analyses of salesmanship types which should, if intelligently applied, be of great assistance. The business controllers of to-day, whether in single or multiple shops, require more than ever, in order to meet the heavy overhead charges, an intelligent and particular application of energy for increased production in sales so as to reach the standard turnover in gross profit requisite for success. This book helps to solve some part of the problem by its suggestive character, which should materially stimulate reproductive thought with profitable results.

Chemical Technology and Analysis of Oils, Fats and Waxes. By Dr. J. Lewkowitsch, M.A., F.I.C. Revised by George H. Warburton. Sixth edition. Vol. III. 9 in. by 5½ in. Pp. 508. 36s. London: Macmillan & Co., Ltd., St. Martin's Street, W.C.

This is the third and concluding volume of the revised (sixth) edition of the late Dr. Lewkowitsch's standard work on oils. Mr. Warburton, who was the author's colleague for many years, has carried out the revision needed for the new edition, retaining the features of the original work. The present volume consists of chapters 15 and 16 of the work, the chief contents being:—

(Chapter XV.)—Technology of Manufactured Oils, Fats, and Waxes—Technical and Commercial Examination of the Products of the Oil, Fat, and Wax Industries. I. Technology of Oils and Fats—Synthetical Fats, Acetine, Extent of Oil and Fat Industries. (a) Industries having for their Object the Refining of Oils and Fats, and their Application to Commercial Uses. (b) Industries in which the Glycerides undergo a Chemical Change, but are not Saponified. (c) Industries based on the Saponification of Oils and Fats. II. Technology of Waxes. (Chapter XVI.)—Technology of Waste Oils, Fats, and Waxes, and the Commercial Products derived therefrom. I. Waste Oils and Fats. (a) Foots from refining Vegetable Oils and Fats. (b) Waste Animal Fats. (c) Mixed Waste Greases. II. Waste Waxes.

There is in addition an appendix, in which are given short abstracts of work that has been published since the volumes were published. There is also an index of the three volumes. The extent of the revision of the third volume is shown by the increase in the number of pages, and at various points where we have compared the text good work has been put into the new edition.

Reviews of Technical Books

The Recovery of Volatile Solvents. By Clark Shove Robinson. 9 in. by 6 in. Pp. 188. \$3. New York: The Chemical Catalog Co. Inc. 19 East 24th Street.

This book breaks into new territory as regards chemical engineering, the subject of solvent recovery being limited to a few industries (chemical and dry cleaning), but which has recently become of great importance in America owing to the extraction of "gasolene" (petrol) from natural or "rock" gas. The author emphasises the fact that each problem of solvent recovery must be dealt with on its own merits, based on previous experience, and a proper application of the principles of chemical engineering. The fundamental laws relating to vaporisation, distillation, and recondensation of liquids are dealt with in the first five chapters, with a definiteness characteristic of engineers. Formulas, equations, rules, and curves, allow of calculations which, unfortunately, do not materialise precisely in practice. "Adsorption" and adsorption apparatus occupy five chapters, much new information being given on the use of charcoal, coke, silica gel, etc., for capillary condensation of vapours. Curves and laws are given, although the whole phenomena of "adsorption" is the subject of active controversy and revision. Solvent recovery proper, and apparatus therefore occupies quite a short chapter of six pages, most of the principles being described in the foregoing chapters on adsorption methods. Cooling in condensers (tubular, etc.), towers, or by refrigeration are dealt with in separate subsequent chapters. Particulars are then given of the use of gas under either natural or forced circulation, for removal of solvent, and next the recovery of solvent by compression and cooling. Scrubbing apparatus, special absorbents, and extraction by solvents are the three concluding chapters, but there is also appended a comprehensive abstract of literature on solvent recovery. Throughout the whole book there are excellent illustrations of apparatus and plant; wherever possible examples of problems are worked out and formulas given. Many of these have theoretical value only, but curves from actual practice provide more accurate guidance. The engineer's love of precision leads to such curious results as long formulas in which the all-important factor is one only determinable by actual experiment with the particular solvent and apparatus in question. The author, who is obviously more engineer than chemist, is careful to indicate practical limitations, which, after all, is the crux of the matter. Taken altogether, the work is an instructive and practical guide on volatile solvents.

Cours de Chimie Inorganique. By Fred. Swarts. Third Edition. 10in. by 6½in. Pp. 734. Brussels: Maurice Lamertin, 58-62 Rue Coudenberg.

Cours de Chimie Organique. By Fred. Swarts. Third Edition. 10in. by 6½in. Pp. 674. Brussels: Maurice Lamertin, 58-62 Rue Coudenberg.

M. Swarts is Professor of Chemistry in the University of Ghent, and in these two volumes he presents this branch of science as taught by him to his students. In both parts the author has succeeded in the difficult task of giving a lucid account of the more recent theories and the progress achieved in our knowledge of many chemical phenomena. In the first volume, the arrangement of the subject-matter is somewhat unusual; the introduction is followed by descriptions of hydrogen, oxygen and the halogens, but before proceeding to a description of sulphur, such subjects as osmotic pressure, cryoscopy and ionisation are dealt with at some length. Catalysis is incorporated in the chapter dealing with ammonia, while thermochemistry, the laws of reactions, affinities and equilibrium, the atomic theory, the periodic system and isotopes are explained, with a profusion of formulas, in a section interposed between the parts of the work dealing with metalloids and with metals. Before entering upon the description of the latter, the author discusses alloys, and after dealing with the group of alkaline metals, introduces a chapter on electrochemistry, while another on radioactivity is to be found between the sections devoted to the alkaline-earth metals

and the magnesium group. Physical chemistry occupies a very large portion of the work, and in comparison to the space devoted to theoretical considerations, the descriptions of the characters and properties of the elements and their salts are relatively brief, albeit concise and lucid. Mention is made of Sir W. Ramsay's suggestion to employ helium in airships, and the contributions to science of British investigators are duly recorded—the achievements of Cavendish, Davy, Faraday, Soddy, Rayleigh, Rutherford, Braggs, Thomson. In the volume devoted to organic chemistry, the vast field has been covered in a systematic and concise manner. A considerable amount of practical information has been incorporated in connection with certain compounds and processes of general interest, such as national differences in brewing, the sugar industry, artificial silk, explosives. While terpenes are dealt with at some length, only seven pages are devoted to alkaloids and glucosides; however, the intention of the author is to furnish his readers with a course of chemistry, an *aide-memoire* to his own students, and not with a text-book on this subject.

Bleaching Powder and its Action in Bleaching. Original memoirs by R. L. Taylor, F.I.C. 8½ in. by 5½ in. Pp. 78. 4s. 6d. John Heywood, Ltd., 121 Deansgate, Manchester, and 20-22 St. Bride Street, London, E.C.4.

The subject-matter of this work has long been the subject of controversy, as is often the case when slight variations in technique cause great differences in results. The author is very precise in giving methods as well as data from which he deduces his opinions. His results are of great importance and throw a flood of light on the peculiarities of calx chlorinata. In Part I. it is shown that the reaction between chlorine and lime is a reversible one and carbon dioxide, in removing the free lime, favours the transformation in the direction of the production of chlorine. Hence keep air out of stock containers. Part II. deals with the action of dilute acids on bleaching powder. Nitric, hydrochloric and sulphuric acids in quantity sufficient to neutralise free lime give distillates consisting of a moderately concentrated solution of almost pure hypochlorous acid, but long before the acid is sufficient to decompose the whole of the calcium hypochlorite present considerable quantities of chlorine are evolved. With acetic and phosphoric acid this secondary reaction is much slower, and with boric acid the latter does not appear to take place. Thus the action of boric acid on bleaching powder is a convenient way of preparing hypochlorous acid. (Best conditions are: bleaching powder distilled with thirty times its weight of water and twice its weight of boric acid, collecting one-third.) The apparently anomalous behaviour of carbonic acid in liberating chlorine only in the cold is explained. The action of bleaching agents is ascribed to free chlorine, hypochlorous acid playing a minor part, but a *hypochlorite* is necessary in the case of linen. Free lime retards this bleaching action, hence the addition of acid to bleaching liquor. Diluting a strong solution with water gives a solution with less free lime than one prepared direct. The author concludes that the active bleaching properties ascribed to hypochlorous acid are for the most part imaginary. The results obtained in regard to solutions of bleaching powder kept in the dark are of remarkable interest, dilute solutions (1 bleaching powder to 100 water) being "practically everlasting," whereas a solution ten times this strength lost 22 per cent. of hypochlorite in fifteen months. The above abstracts are given as the subject is of great importance in connection with chlorinated alkali solutions in surgery. Hypochlorous acid solution prepared by distillation may find a use in surgery, as a 4 per cent. solution lost only 28 per cent. in five months and 50 per cent. in six years when kept in the dark. This little book should be helpful in solving the problem of the most stable solution for chlorine disinfection.

Pharmaceutical Society of Great Britain

Major Examination Results

THE following were the twenty-seven successful candidates at the Pharmaceutical Society's Major examination held in London this month, when forty candidates were examined:—

Arkell, Doris M.	McClosky, C. A.
Bearman, S. W.	Mowat, Ellinor J.
Beaven, C.	Nutt, T. D.
Burrows, E. L.	Randle, Dorothy G.
Carr, Joyce M.	Scott, Winifred J.
Davies, J. M.	Short, G. R. A.
Evans, Lilian M.	Shuttleworth, Gwendoline A.
Francis, Nehemiah	Surfleet, Arthur
Groves, Annie E.	Thomas, F. A.
Hillman, G. C. S.	Umney, J. H.
Jagger, J. E.	Wood, Anne
Jones, L. L.	Woolfitt, Norah
Linstead, H. N.	Wright, George
Lyon, D. M.	

Branch Meetings

Bath.—A well-attended meeting of members of the Pharmaceutical Society of Bath and district took place on April 12 to consider the formation of a branch of the Society. The President of the existing Association, who occupied the chair, said that under the scheme the members would be brought more into touch with headquarters, which would remove a cause for reproach that they did not know of various matters until they had been settled. Now, before any actions were taken the provincial members would be consulted. He believed it was a step in the right direction. Mr. P. F. Rowsell, Mayor of Exeter and member of the Pharmaceutical Society's Council, explained that this new scheme of organisation had been brought about through a decision in a test case, which brought about the parting of the ways, and it was now necessary that the Society should devote itself to those things which belonged to the professional side of their calling. It was, however, essential that the Society and the Retail Pharmacists Union should run side by side, and have the closest co-operation where the professional side touches the commercial side. They were anxious that Bath should establish a branch of the Society. They had had local associations, but with them there had never been a strong link with the Society. Under the scheme proposed they would have the strongest possible connecting link. Now the main result would be to have the national influence and prestige of the Society reflected in every area, so that no portion of the members would be out of touch with the Society. One thing was that every member and every student associate would be brought into touch with other members. In the past they had far too much neglected the young people coming into the profession. If they formed a branch he hoped it would be a live branch. They had had too much of the dead, inactive associations, which only came to life when military service was worrying them, or the National Insurance terms were to be discussed. (Laughter.) Headquarters would help them. They did not want to interfere with local initiative. They wanted every member and every associate to feel that the Society—never mind what it had been in the past—was willing to take a live interest in the advancement of each of them, and to do all it could to strengthen the position. He did not know whether they proposed to keep the local Association. In Devon they had got rid of them, and formed branches at Exeter, Torquay and Plymouth to cover the whole of the county. Mr. Hallett asked if there was any provision for the retention of members who did not belong to the Society. Mr. Rowsell said the very simple remedy was to get them to join the Society. He hoped the time was not far distant when there would be none outside. In any new legislation they ought to see to it that membership became obligatory. Mr. D. J. Williams moved that a branch be

formed, that the secretaries be appointed, and the other officers be elected at the next meeting. He said some of them had long hoped for something on these lines. Other scientific bodies were realising a similar necessity. Mr. Lovelace seconded. Messrs. Evans and Wilson supported the motion.

Blackpool.—A meeting of members and associates of the Pharmaceutical Society was held on April 19 to discuss the formation of a Blackpool branch of the Society. There was a large attendance. Messrs. Pilkington, Sargeant and H. O. Lloyd were present on behalf of the Council, and outlined the advantages of the new group system. A branch was formed, with Mr. O. Gillibrand as chairman, and a committee was elected.

Carmarthen.—A meeting of the members of the Pharmaceutical Society of Cardiganshire, Carmarthenshire and Pembrokeshire was held on April 10 at Carmarthen. Mr. H. M. Lloyd, member of the Pharmaceutical Society's Council, gave an instructive address on the future utility of the branch, and it was unanimously agreed to form a branch for the counties of Cardigan, Carmarthen and Pembrokeshire. The following members were elected to form a *Committee*: Messrs. Miall Jones, Aberystwyth; Evans, Llandyssul; Jones, Lampeter; Thomas Llewellyn, Cardigan; John Walters, Burry Port; Walter Lloyd, J.P., Carmarthen; Evan Evans, Ammanford; John Gower, Llanelly; J. Jenkins, St. Clears; J. W. Evans, Garnant; Stanley Davies, Carmarthen; Pugh Davies, Haverfordwest; Llewellyn, Milford; Llewellyn, Gombirch; Francis Phillips, J.P., Haverfordwest. *Chairman*, Francis Phillips, J.P., Haverfordwest. *Vice-Chairman*, John Walters, Burry Port. *Treasurer*, Evan Evans, Ammanford. *Secretary*, John Gower, Llanelly. The chairman was appointed as delegate to conference.

Inverness.—A meeting of members and student-associates of the Society in Inverness and the North of Scotland was held in the Queensgate Hotel, Inverness, on April 18, Mr. Thomas Mackenzie, Ph.C., in the chair, at which a local branch was formed. Mr. Chas. Simpson, Aberdeen, explained the new conditions which had necessitated the formation of branches. Mr. J. Rutherford Hill and Mr. Donald Mitchell also spoke. The name of the branch will be the Inverness and Northern Scottish Branch of the Pharmaceutical Society, and the following office-bearers were appointed: *Chairman*, W. J. Bethune, Inverness; *Vice-Chairman*, Simon Hendry, Inverness; *Secretary and Treasurer*, T. Mackenzie, Ph.C., 1 High Street, Inverness; *Committee*, W. Cumming, Thurso; D. Fraser, Inverness; J. Finlayson Hunter, Dingwall; Alex. McCutcheon, Kingussie; D. Mitchell, Inverness; D. A. Ross, Tain; J. Spence, Elgin; Jane Y. Stephenson, Cromarty; J. R. Stewart, Airdersier; R. Sandison Waters, Wick; and W. A. Watson, Glantworth-on-Spey.

Newcastle-on-Tyne.—A meeting of the Northumberland, Newcastle and Durham Branches was held on April 11, at Newcastle-on-Tyne, when Mr. A. Harburn, Ph.C., Bishop Auckland, President of Durham Branch of the Pharmaceutical Society, gave a lecture on *The Story of the Art of Glassmaking*. The audience numbered over 150. Mr. Harburn spoke of the earliest history of the making of glass by the Egyptians, Phoenicians, Italians and French, showing illustrations of original specimens. He explained that glassmaking was introduced into this country by the early Christians, who brought over skilled Frenchmen to make the stained glass windows for their monasteries. This led on to the discovery of the addition of red lead, which proved a marked advance in the process. It was during the Middle Ages that glassmaking became an important industry in this country, when, after several unsuccessful attempts, it was established on the Tyneside. Modern methods of glassmaking were next explained, and Mr. Harburn described how a glass bottle was made to-day, and illustrated his remarks by a series of pictures of different parts of a works, showing the different processes involved. The whole lecture was illustrated by a unique series of plain and coloured slides, which were the lecturer's own work. Mr. Gibson, North Shields, proposed the vote of thanks.

Scarborough.—A meeting of the members of the Society in this district was held on April 11 to discuss the formation of a local branch. Mr. E. M. Chapman, F.I.C., F.C.S., Ph.C., presided over a large attendance, and introduced Mr. F. G. Hines, Ph.C., York, who gave an address illustrating the methods in which local branches could be of service. It was unanimously decided to form a branch, the officers being elected as follows: *Chairman*, Mr. W. R. Eyre; *Vice-Chairman*, Mr. J. W. Chapman; *Secretary and Treasurer*, Mr. H. M. Hirst; *Committee*, Messrs. W. H. Turner, F. Lund, G. Bird, H. E. Hunt, G. Meadley and J. S. Longdin. Mr. J. Whitfield, Ph.C., the oldest chemist in Scarborough, who appeared in excellent health, proposed the vote of thanks to Mr. Hines for his address.

Watford.—The Watford and St. Alban's Pharmacists' Association held a meeting on April 24, at which a branch of the Pharmaceutical Society was formed. Mr. R. Bennion presided, and Mr. Thomas Marns explained the scheme of organisation. Mr. Tocher also addressed the meeting. The following office-bearers were afterwards appointed: *Chairman*, Mr. D. W. E. Barker (Watford); *Secretary and Treasurer*, Mr. A. R. Lewis (Chorleywood); *Committee*, Messrs. H. B. Figg (Berkhamsted), P. H. Warren (St. Albans), A. H. Paton (Watford), J. G. Fletcher (Watford), E. C. Last (Watford).

Wolverhampton.—The Wolverhampton Branch of the Pharmaceutical Society held a meeting (illustrated by lantern) on April 18, at which Professor H. G. Greenish (Dean of the School of Pharmacy) gave a lecture on *Drugs and How They Reach this Country*. He said that the bulk of the drugs imported into this country come to London, Liverpool, or Hull, the first-named being the most important. By means of lantern slides, from his own photographs, the professor showed how many varieties of drugs are landed at the London docks and wharves and how they are subsequently stored, handled, sampled and exhibited for inspection in the adjoining warehouses. There was a good audience, several of the Birmingham members, including Mr. A. W. Gerrard, were present. Mr. R. J. T. Hagyard presided, and Mr. H. L. Warner handled the lantern.

Chemical Society

At the meeting of the Chemical Society, held in Burlington House, Piccadilly, W., on April 19, the President, Professor W. P. Wynne, F.R.S., in the chair, five papers were read. Dr. J. Kenner (with Mr. K. Ibbotson) presented a communication on *The Influence of Nitro-Groups on the Reactivity of Substituents in the Benzene Nucleus, Part VII. Reactions of 2:5- and 4:5-dinitro-m-xylenes*, in which, by the aid of numerous slides of formulas, he showed how the experience gained by the results of these reactions is useful in applying the theory of induced polarity. When different groups are available for reaction in a compound, the key atom must be selected—in this case, the oxygen atom of the free nitro-group. However, this is applicable only when one group is sterically free and the other is not. When both groups are normally sterically free, it has been found that the steric factor is more powerful than the directive factor in deciding displacement. In determining replacement in the ortho and para positions, the methyl group has a stronger effect than the chlorine atom. In the two dinitroxylenes, obtained by the authors, a competition between the steric and directive factors was observed, and it was found that on reduction xylenediamine was produced, which enabled them to forecast which group would be replaced. *The Chemistry of the Three-Carbon System, Part I., The Influence of the Cyclohexane ring on the $\alpha\beta$ - $\beta\gamma$ Change*, formed the subject of the paper presented by Dr. G. A. R. Kon with Messrs. S. F. Birch and W. S. G. P. Norris), in which a glutaconic-acid type of tautomerism was discussed, and illustrated by a large number of formulas. This tautomerism was examined in an equilibrium mixture of cyclohexylenedene-acetic acid, and in the resorcinol and ethyl derivatives from the $\alpha\beta$ and the

$\beta\gamma$ forms, the authors coming to the conclusion that the cyclohexane ring present in the latter apparently stabilises this form, owing to the tendency to double-bond linkage. Mr. S. Medsforth, in his paper *On the Promotion of Catalytic Reactions, Part I.*, dealt with the formation of methane from carbon monoxide, carbon dioxide, and hydrogen in the presence of nickel, dwelling on the considerations which call for the incorporation of a dehydrating substance to promote the reaction. The function of the promoter thus introduced is to take over the dehydrating action of the nickel. Experiments had shown that in the course of the above reaction methyl alcohol is formed as an intermediate compound, and the function of the promoter, in addition to dehydration, is also to prevent dehydrogenation. Further, the observation was made that when two reactions can take place in the presence of the catalyst and promoter, the latter has the effect of markedly accelerating the slower reaction. The authors discussed the question whether nickel or nickel suboxide is the actual catalyst, the effect of promoters, and the concentration required to obtain the maximum action. In dealing with the dehydration hypothesis of promoters, they assume that the reversible reaction $\text{CO} + \text{H}_2\text{O} \rightleftharpoons \text{CO}_2 + \text{H}_2$ takes place via the formation of formic acid, in the presence of copper. In using nickel, or iron, as catalysts alone, the effect of the same promoter is greater on iron than it is on nickel, i.e., the promoter has a greater comparative effect on the feebler catalyst. In the incandescent gas mantle we have in ceria and thoria a combination of oxygen carrier and dehydration agent. In catalytic reactions, the promoter acts, *inter alia*, by forming intermediate compounds for the action of the catalyst. *The Action of Halogens on Phenylhydrazones, Part I. The Action of Bromine*, formed the subject of the paper read by Mr. J. E. Humphries (with Messrs. E. Bloom and R. Evans). On adding bromine to various phenylhydrazones dissolved in carbon tetrachloride, a coloured, tarry precipitate was obtained, showing an addition of one molecule of bromine to one molecule of phenylhydrazone; in some cases powders were obtained. Half the bromine added was eliminated as hydrobromic acid, and its action was complete, no free bromine being eliminated. On further bromination, the bromine went into the para position; in benzaldehyde, however, further substitution took place. Dr. C. K. Ingold (with Mr. H. A. Piggott) briefly reviewed the results of a study undertaken to find the circumstances which give rise to the phenomenon of tautomerism, and to define the structural conditions which constitute tautomeric properties, embodied in their paper, entitled *The Mobility of Symmetrical Triad Systems, Part II. The Conditions Relating to Systems Terminated by the o-Phenylene Group. Derivatives of Indene*. Four triad groupings were studied, adopting the test of symmetry and the test of substitution as the methods to ascertain the basis of tautomerism. The absence of any work on indene presented a lacuna, and therefore this compound was studied. It was obtained by a series of processes from cinnamic acid, and Dr. Ingold rapidly discussed its substitution products, showing that the three-carbon system present in indene satisfies the test of mobility. The facts set forth in this paper were discussed with the aid of numerous slides, giving the formulas of the various compounds under consideration.

HISTORY OF SPECTACLES.—We have received from Mr. C. J. S. Thompson, M.B.E., F.R.A.M., Turin, curator of the Wellcome Historical Medical Museum, 54A Wigmore Street, London, W., a copy of an article, of which he is the author, reprinted from "Health," on the ancient spectacles in the Museum. While the inventor of spectacles is still unknown, it is generally conceded that glasses were used by the Chinese at a period of great antiquity, and that Egyptian work in precious stones and gold done about 2,000 B.C. could only have been accomplished by the aid of magnifying-glasses. The earliest pair of double eye-glasses in the Museum probably dates from the latter part of the sixteenth century. The reprint contains several illustrations depicting eye-glasses, including the earliest known drawing—of about the year 1375. (See also *C. & D.*, II., 1922, p. 860.)

Associations' Winter Session

Birkenhead.—The Birkenhead and Wirral Pharmacists' Association held a meeting on April 18, when Mr. Wynne, who attended the Retail Pharmacists' Union Conference in London recently, gave a report of the meeting and an address on *R.P.U. Organisation*. Many questions were asked, and a discussion took place. Mr. Stephen Jones moved a vote of thanks to Mr. Wynne, and laid stress on the work which Mr. Wynne had done for the Association in the past, and the debt which chemists in the area owed him. It was agreed to form a branch of the Pharmaceutical Society in accordance with the Societies' request to complete the organisation scheme. The date of the inaugural meeting is May 2.

Edinburgh.—The Edinburgh Chemists', Assistants' and Apprentices' Association held the annual business meeting on April 18, Mr. Thomas A. Smith (President) in the chair. Mr. James W. Teesdale, secretary, submitted the annual report. Mr. H. B. Young, treasurer, submitted the financial statement, indicating a balance of £3 2s. 9d. Thanks were accorded to the Pharmaceutical Society for the privilege of meeting in the Society's house, and a donation of £1 1s. was authorised to the Benevolent Fund. The report and financial statement were unanimously adopted. Office-bearers and committees for the ensuing year were elected as follows: *President*, Miss M. Grant Boag; *Vice-President*, J. W. Teesdale; *Secretary*, E. A. M. Knott, Ph.C., 27 Lauriston Gardens; *Assistant Secretary*, A. Paterson; *Treasurer*, H. B. Young; *Committee*, Misses Findlater, Ingram, Purdie and Smith, and Messrs. J. W. Laing, T. A. Smith, H. Stout and J. H. Tainsh; *Prize Committee*, the President, Vice-President and Secretary, and Messrs. Stout, Tait and Young. Miss Isabella A. Purdie, Ph.C., submitted fourteen illegible prescriptions as a test in prescription reading. Each member was asked to write out his or her interpretation and the results were compared, with some interesting results. On the whole, there was surprising agreement as to what was intended by the prescriber. When there was talk of accuracy in dispensing there was need to emphasise the urgent necessity for legibility and accuracy on the part of prescribers. Thanks was accorded to Mr. A. B. Gilmour, of the Central Checking Bureau, who had supplied a number of examples. Miss Purdie also contributed some *Notes from the Dispensing Counter*. Recently a prescription was presented requiring 60 gr. of zinc oxide in a 15-gr. suppository. The quantity is, of course, too large. A good suppository can be made by adding a few drops of almond oil to keep the mass sufficiently thin and manipulating by hand in filling the mould. Suppositories, of which a sample was shown, containing 35 gr. of zinc oxide, were made in this way, using 5 gr. of oil of theobroma and about one drop of almond oil for each suppository. An interesting incompatibility was met with in the following prescription:—

Sodii nitrits	...	...	gr. ij.
Glycerin. pepsinæ	...	...	5j.
Aq. menth. pip. ad.	...	...	3ss.
			Mitte. 3vj.

When dispensed as written the cork is blown out, owing to action of the hydrochloric acid on the sodium nitrite and probably action of the nitrous acid on the pepsin with liberation of nitrous fumes. If the glycerin of pepsin be neutralised with sodium bicarbonate before adding to the solution of sodium nitrite the mixture keeps quite well.

Calcii lactat.	...	...	3ij.
Magnes. carb.	...	...	3ij.
Magnes. sulph.	...	...	3ss.
Aq. menth. pip. ad.	...	...	3vj.

In the above, calcium sulphate is formed at the bottom of the bottle, and it cannot be shaken up.

Glycerin. ol. olivæ	...	aa	3ij.
Sodii. bicarb.	...	...	gr. x.

This is the maximum solubility of sodium bicarbonate in glycerin. The sodium bicarbonate should be dissolved in the glycerin before adding the olive oil. It is advisable to dispense in a bottle double the size, so as to enable

a good shake to be given each time before dropping. The following prescription includes two well-known incompatibilities:—

Tinct. ferri. perchlor.	...	...	3ij.
Potass. iodid.	...	...	3ij.
Sp. ammon. aromat.	...	...	3ij.
Infus. calumb. ad.	...	...	3vj.

The potassium iodide reduces the ferric chloride with separation of free iodine, and another portion of the ferric chloride reacts with the aromatic spirit of ammonia with precipitation of reddish-brown ferric hydroxide. By adding 3j. of potassium citrate both reactions are prevented. The following prescription for an ointment raises a useful point:—

Hyoscin. hydrobrom.	...	...	gr. ss.
Vaselin.	...	...	3j.

This is best dispensed by using three drops of distilled water to dissolve the hyoscyne hydrobromide and 25 per cent. of anhydrous lanolin to absorb the aqueous alkaloidal solution and keep it uniformly diffused in the ointment. A prescription for a mixture was shown, containing phenolphthalein gr. 24, and aloin gr. 16, in one dose, which produced only a slight action on the patient, and recourse was had to castor oil in 4-oz. doses.

Eastbourne.—The Eastbourne Pharmacists' Association held a meeting on April 10, at which Messrs. H. C. Browne and Arthur Mills, delegates at the recent Retail Pharmacists' Union Conference, criticised the proceedings, the main point of dissatisfaction being the poor response received to the resolution regarding the marking of prescriptions, which the Eastbourne area has found such a boon.

Manchester.—The annual meeting of the Manchester Pharmaceutical Association was held on April 11, Mr. E. H. Simmons (President) in the chair. There being no fresh nominations put forward for the Council of the Association, the President declared all the present members re-elected. The annual report of the work of the Council having been circulated, was taken as read. Mr. A. J. Pidd (treasurer) submitted his annual report and balance sheet, which as usual was of a very satisfactory nature. The credit balance on the year's working amounted to £16 7s. 1d., which, added to the previous balance in hand, made £117 17s. 3d. The President paid a tribute to the manner in which Mr. Pidd looked after the finances of the Association, the report being adopted with applause. Votes of thanks were accorded to Mr. A. L. Blain for his services as librarian, to Mr. V. Cromack for his services as auditor, and regret was expressed that, through ear trouble, Mr. Cromack was unable to accept office again. Mr. Vallance, a director of James Woolley, Sons & Co., Ltd., was unanimously appointed to the vacancy. Mr. A. J. Pidd (treasurer) and Mr. T. Miller (secretary) received cordial votes of thanks and appreciation for admirable work done during the session. The President (Mr. E. H. Simmons), the Vice-Presidents (Mr. T. E. Eastwood and Mr. D. Dickson) also received thanks for the duties ably carried out by them during the session. Mr. F. W. Bates, J.P., spoke on the forthcoming Council election of the Pharmaceutical Society, referring first to the retirement of Mr. J. Rymer Young, a man who, during thirty years, had represented Manchester (for he was one of the members and an ardent friend of the Manchester Pharmaceutical Association). Mr. E. H. Simmons, the President of the Association, was their selected candidate and one who had their confidence and support. He asked them to use every effort and influence to ensure that Mr. Simmons was returned at the head of the poll, to continue the work so admirably carried on by Mr. Young. Mr. W. Kirkby, M.Sc., dwelt on the importance of using every effort in this matter, and Mr. J. H. Nidd, as a Lincolnshire man, said it gave him particular pleasure to pay a tribute to the manner in which Mr. Simmons (who was also a Lincolnshire man) had carried out the duties of his office during the past session. Mr. E. H. Simmons, in replying, said he would try to give them some of his ideas and plans for the future, and, if elected, he would endeavour to carry them through. After paying a tribute to Mr. J. Rymer

Young, Mr. Simmons gave an excellent address dealing *seriatim* with various problems.

Newcastle-on-Tyne.—At a recent meeting of the Newcastle-on-Tyne Pharmacists' Association, Mr. H. A. Roper (President), gave a lantern lecture on *A Holiday with a Camera*. Mr. H. S. Williamson (Vice-President), of North Shields, occupied the chair. A feature was a collection of slides from members' photographs, shown at the close.

Sheffield.—A meeting of the Sheffield Pharmaceutical and Chemical Society was held at the Church House on April 16, Mr. A. Knowles presiding. The chairman welcomed Mr. Bernard Ellis, LL.B., barrister-at-law and pharmacist, as one of their old members who had distinguished himself, and called upon him to give a lecture entitled,

THE PHARMACIST, PAST AND PRESENT

[ABSTRACT]

Mr. Ellis said that, after three years' absence from pharmacy, and having met all sorts and conditions of other professional men, he had been led to ask what the position of the pharmacist to-day is. Thirty years ago the pharmacist was a very respectable member of society, but to-day, in some quarters, he is looked upon as a rather shady person. He is probably the most law-abiding member of callings in which education is an important element. There is no calling which is more exacting, which demands so much personal attention for almost every act done. The law demands a great deal from him, but the law does not guarantee an equivalent reward. Indeed, it would appear that the greater the restrictions, the more exacting the duties, the less reward. During the last thirty years the chemist has been more humbugged than anybody by childish restrictions imposed upon him with the object of improving humanity, all of which have more or less failed. His examinations get keener, he is becoming financially worse, and he is abused quite wrongly, because some degenerates persist in committing suicide. If a would-be suicide cannot get cocaine or morphine from a chemist—and he cannot—he will try Chinaman or a gas oven. No Act of Parliament has ever prevented or ever will prevent degenerates from ending their lives; and the sooner we get healthy brains in Parliament, the better for the country. Lately an uneducated Bench has gone almost mad, imposing heavy fines upon unsuspecting chemists because they have erred in dispensing to the extent of fractions of a grain. The Ministry of Health is shocked; but in spite of it, and in spite of the eternal vigilance of hordes of bureaucrats, the public health continues to improve, while the authorities are bordering on insanity. Mr. Ellis then compared pharmacy with the law, the Church, the Army and Navy, the civil service, architecture, and medicine, saying that:—

The *Law* has made no progress for hundreds of years: it is still mediæval, and even archaic, in some of its branches.

The *Church* has made no progress for over a thousand years; it is buttressed by the State and a highly-privileged association.

The *Army and Navy* are State organisations and hopelessly inefficient.

The *Civil Service* examinations are stiff; but if, after admission, a man displays any brains, he is quickly overlooked.

Pharmacy is probably the most modern of the arts and sciences, and is the least respected.

Apart from chemists, no body of men has been worse treated than qualified dentists. Their bread and cheese is now in jeopardy, due to the shortsightedness of the poverty-stricken mentality of recent Governments. The chemist's business is allowed to be exploited by quacks, whose wealth is enormous. Such is the degree of degradation to which we have come after fifty years of education. What a satire! But the pharmacist will come out on top if he will be bold and doing. He must leave his shop a little, and cultivate the art of public speaking. He must take a larger share in public life. He must come out of his shell and compete with men in political and social work.

Until he does this he cannot hope to be considered a force in the State.

DISCUSSION

A discussion followed, in which Dr. Mainprize (who supported the lecturer), Mr. J. T. Appleton, and Mr. H. Antcliffe took part. Mr. Antcliffe said that the Society had realised the weakness of their Preliminary examination, which had now been raised in standard. Chemists must watch so that a repetition of the Dentists' Act did not occur. During the last fifteen years the tenure of poor-law dispensers had been considerably reduced. Mr. Bown urged the chemist to insist on his proper status being recognised. On the motion of Mr. H. B. Hammond, a hearty vote of thanks was accorded Mr. Ellis.

East Anglian Federation

The annual meeting of the East Anglian Federation of Pharmaceutical Associations was held at Ipswich on April 11. The President (Mr. J. W. Bodger) Peterborough, presided over a representative attendance. The treasurer's report for the year showed a balance of £12 15s. 11d. after expending the sum of £19 15s. 11d., and £5 3s. 6d. had also been collected at the various meetings of the Federation during the year on behalf of the Benevolent Fund of the Pharmaceutical Society. The secretary's report was held over owing to the unavoidable absence of the secretary. The retiring President said in his address that the Federation had to contend with the notorious apathy of the pharmacist, but it was their business to overcome this. They stood for unity and fellowship in the craft, for good service, and to maintain the position of the individual pharmacist as against the company shops. The officers for the ensuing year were elected as follows:—*President*, Mr. J. A. Symonds (Ipswich); *Vice-Presidents*, Mr. S. T. Milbank and Mr. P. Robinson; *Hon. Treasurer*, Mr. J. W. Bodger; *Secretary*, Mr. S. G. Tydeman; *Committee*, Messrs. Beeston (Norwich), Bevan (Colchester), B. Campkin (Cambridge), Hayllar (E. Herts), Hill (Gt. Yarmouth), Wiggan (Ipswich). One vacancy will be filled at a later date. An interesting address was then given by Mr. F. T. Alpe on *Bacteriology*. Considerable experience, he said, is necessary before any bacteriological examinations could be undertaken. He was of the opinion that a six months' course under an experienced teacher was necessary, and after that at least a year's work in a public health laboratory. Apparatus was suggested for carrying out examinations of sputum, blood for Widal reactions, and the simpler methods of isolating organisms by culture, including a good microscope with a 1/12 in. oil immersion lens, hot air steriliser, steam steriliser, a small centrifuge, an ordinary bacteriological incubator, and dishes, flasks, and glass tubing. He described in detail the demonstration of tubercle bacilli in sputum. Agglutination tests with regard to intestinal infections were also described, and the methods followed in the examination of water and milk. With regard to the examination of throat swabs for diphtheria bacilli, fermentation tests had often to be resorted to. The two sugars in use were glucose and saccharose. The preparation of the various media for use in the laboratory were also described, this work being particularly of a type which would appeal to the pharmacist. He mentioned that he considered chemical examination of water from a sanitary view well within the scope of work that might well be undertaken by the pharmacist. The differential values of Gram method of staining were explained. From a commercial point of view the following were given as the average fees obtainable for various work:—Water analysis, £1 1s. to £2 2s.; examination of sputum for tubercle bacilli, 2s. 6d. to 5s.; swabbing for K.L.B., 3s. to 5s.; Widal reaction for typhoid, etc., 5s.; urine, 2s. 6d. to 10s. 6d. A number of tubes showing reactions and cultures were passed round during the address, and a vote of thanks was accorded to Mr. Alpe for his interesting address. It was decided to support the candidature of Mr. F. G. Hines for the forthcoming Pharmaceutical Council Election. The next meeting will be held at Yarmouth towards the end of June. A collection in aid of the Benevolent Fund realised £1 7s.

New Belgian Customs Tariff

At last the long-awaited draft of the new Belgian customs tariff has been presented by the government to the Belgian parliament. In spite of the secrecy which, officially surrounded the elaboration of the proposed scale of charges, it was generally known that the new tariff would be largely influenced by the desire to extend a greater measure of protection to national industries, and also by fiscal considerations. The proposed tariff gains additional importance from the fact that it is destined to form the basis of the negotiations with France for the conclusion of a commercial *entente* between both countries; however, it is now evident that this collaboration will not be of so intimate a nature as had been frequently suggested—some urging even the conclusion of a customs union, in order to bind together more closely France and Belgium. The delay in publishing the draft of the new tariff was largely due to the cautious methods adopted by the commission, which desired to reconcile, so far as practicable, conflicting interests in order to ensure the rapid passage of the new measure through parliament, by avoiding prolonged discussions and negotiations.

TAXATION OF PROPRIETARIES

Naturally, certain details concerning the new duties leaked out; thus, an important Brussels newspaper recently commented on the alleged intention of the government to impose a duty on imported pharmaceutical specialities. In this article it was stated that proprietary preparations were being increasingly prescribed by doctors, and that foreign manufacturers would certainly not agree to further sacrifices in profits since, in order to retain their Belgian clients, they had already made great concessions with regard to the exchange rate. Further, it was pointed out, an import duty would result in a disproportionate increase in the price of these preparations to the public, since the middleman calculates his profit on the cost price, plus the duty. Therefore, if it was intended to tax this category of goods, it would be preferable to levy a tax by means of revenue stamps to be affixed to the containers. However, the Government refused to entertain this proposal, and has included an *ad valorem* duty of 20 per cent. on pharmaceutical specialities. But, as regards "intelligent anticipation," "Die Chemische Industrie," of Berlin, deserves the palm. Already in its issue of January 6, this organ of the Association for the Protection of the Interests of Germany's Chemical Industry was able to inform its readers that the bill for the revision of the customs tariff had been presented to the Belgian parliament, giving certain details which indicated an accurately inspired knowledge of its general tenor. This was followed by the statement that the British commercial attaché in Brussels had made representations concerning the new tariff to the Belgian Foreign Minister, and that interested parties had invoked the assistance of the Foreign Office and of the Board of Trade. Inquiries made at the time in responsible quarters in London and in Brussels failed to confirm any such *démarche* on the part of the government. It is no secret that many manufacturers interested in exporting to Belgium were somewhat alarmed at the decidedly protectionist tendencies attributed to the framers of the proposed new tariff, and we believe we are correct in stating that in this respect American business men have been particularly active in their endeavours to have many of the originally suggested import charges on certain goods scaled down, and in this they were backed by French as well as British exporters.

BASIS OF THE TARIFF

The proposed tariff is divided into 21 sections, with a total of 1,211 tariff numbers. A minimum and a maximum scale of charges is included, the latter being three times higher than the rates of the minimum scale. The maximum tariff is to be applicable, at the discretion of the government, to goods originating in or coming from countries with which Belgium has no commercial agreements, or which do not accord to Belgium most-favoured nation treatment in matters of commerce, navigation or customs, or which place obstacles in the way of Belgian

trade by import or export prohibitions or restrictions, or by the application of excessive duties or taxes. Further, the maximum tariff may be applied temporarily to goods originating in countries where economic conditions have resulted in such a considerable depreciation of the currency that on importation into Belgium such goods enjoy advantages modifying normal competition to such an extent as to prejudice native industry. In addition to the basic rates of duty figuring under the minimum and maximum tariffs, the system of increasing, with a certain degree of elasticity, the actual amount of duty to be paid by the application of "coefficients of increase" has been retained. For the purpose of calculating the duty chargeable, the basic rate stipulated in the tariff is multiplied by its "coefficient of increase"; however, the bill provides that individual coefficients may be reduced, or suppressed, in accordance with alterations in prices of goods, or to meet economic contingencies. The coefficient may, if necessary, be re-applied, but may not exceed the rate figuring in the proposed tariff. The duties are mainly specific, only certain *ad valorem* charges having been retained. Duties levied on the basis of weight are to be assessed as follows:—(a) On the gross weight, including all receptacles and packings, in the case of goods subject to a duty not exceeding 10 francs per 100 kilos. (according to the minimum tariff), not taking into account the "coefficient of increase"; (b) on the legal net weight obtained by deducting from the gross weight the tare allowance to be fixed by the government for certain goods; (c) in the case of other goods, on the actual net weight, obtained by deducting the weight of all receptacles and packages from the gross weight. For goods dutiable on the *ad valorem* basis, the assessable value is determined by the normal value of the goods at the place of origin, or manufacture, increased by cost of packing, transport, insurance and all other expenses incurred until reaching the place of clearance through customs. The declared value may not be lower than the normal wholesale price of similar goods in Belgium, after deducting the duty which such products would have to pay on importation. Ordinary packings (casks, cases, cartons, etc.), containing goods exempt from duty, or dutiable according to their net weight, are admitted duty free. On the other hand, in the case of goods packed in boxes, cartons, etc., for direct delivery to the purchaser, the packages pay the same duty as the contents, the amount being levied on the total weight of the package.

DUTIES ON PHARMACEUTICAL PRODUCTS

Of the twenty-one sections into which the actual tariff is divided, Section V., which includes chemical and pharmaceutical products, essences, perfumery and cosmetics, embraces no less than 173 rates of duty, incidentally covering a very large range of specifically mentioned chemicals. In this section, which is of special importance to exporters of pharmaceutical products, we note that it is proposed to admit free of duty, *inter alia*, crude or refined iodine, mercury, benzoic, citric, lactic, oxalic, phosphoric, salicylic and tartaric acids, sodium bicarbonate, mercurous and mercuric chloride, chloroform, iodoform, chloral hydrate, serums and vaccines, and all natural alkaloids, to which is also assimilated diacetylmorphine. On the other hand, an innovation has been introduced in the shape of an *ad valorem* duty of 20 per cent. on all pharmaceutical specialities entering Belgium, and if these contain alcohol, it is stipulated that the amount chargeable must in no case be lower than that leviable when assessing such alcoholic specialities as "unspecified alcoholic preparations" (tariff No. 269), in which case they have to pay a duty of 360, 900, or 1,800 francs per 100 litres, if containing not over 20 per cent., between 20 and 50 per cent., or over 50 per cent. of alcohol respectively. In addition, such alcoholic preparations are subject to an extra tax amounting to 16 per cent. of the sum of the actual duty assessed on the foregoing basis.

TARIFF CHARGES

The following are the proposed minimum basic tariff charges, together with the corresponding "coefficients of increase" (i.e., the amount by which the basic charge must be multiplied to obtain the actual duty chargeable) for goods of interest to our readers:—

Tariff No.	Article	Minimum Rate of Duty per 100 kilos. Francs	Coefficient of Increase	Tariff No.	Article	Minimum Rate of Duty per 100 kilos. Francs	Coefficient of Increase
SECTION I.							
17	Bone grease and grease from wastes (wool fat, lanolin) ..	Free	—	269	Alcoholic preparations not otherwise mentioned, containing 20 p.c. or less of ethyl alcohol, or other alcohol ..	360	—
19	Fish oils and fats ..	Free	—		Containing over 20 and under 50 p.c. ..	900	—
37	Sponges: (a) unworked ..	Free	—		Containing over 50 p.c. ..	1,800	—
	(b) prepared ..	25	3		(Alcoholic preparations not otherwise mentioned are subject to an additional tax amounting to 16 p.c. of the amount of the import duty.)		
SECTION II.							
59	Fenugreek, oilseeds, mustard (crushed) ..	Free	—	270	Vinegar and acetic acids, containing not more than 8 p.c. of pure acetic acid ..	15	2
64	Spices:				Over 8 and under 40 p.c. ..	75	2
	Amomum seeds, cardamoms ..	75	3		Over 40 p.c. ..	187.50	2
	Cinnamon (canuella and clove-bark) ..	Free	—	SECTION V.			
	Cinnamon (Ceylon, Chinese, Cassia) ..	18	3		Solutions of ammonia ..	Per 100 kilos	3
	Cinnamon-tree flowers ..	18	3	295	Solution of hydrogen peroxide ..	Free	—
	Laurel leaves ..	4	3	30	Arsenious acid ..	2.50	3
	Cloves, fruit of cloves ..	20	3	303	Acids:		
	Clove stalks ..	7	3		Glacial acetic acid ..	187.50	2
	Mace ..	60	3		Boric acid ..	2.50	3
	Nutmegs, pimento, capsicum, allspice, pepper ..	20	3		Hydrochloric acid ..	0.50	3
	Saffron ..	500	3		Citric, hydrofluoric, lactic acids ..	Free	—
	Vanilla ..	350	3		Nitric acid ..	3	3
	Spices not otherwise mentioned ..	10	3		Oleic acid ..	2	3
101	Medicinal fruits and fruits for distillery, not otherwise mentioned	Free	—		Oxalic, phosphoric, salicylic acids ..	Free	—
104	Seeds used in perfumery (Tonka beans, etc.) ..	10 p.c. ad val.	—		Stearic acid ..	5	3
105	Oil seeds and oleaginous fruits (earthnuts, rape seed, linseed, etc.) ..	Free	—		Sulphuric acid ..	0.50	3
116	Cacao butter ..	Free	—		Tartaric acid, and acids not otherwise mentioned ..	Free	—
117	Vegetable butters (other than cacao butter), sweet and fixed oils, used in medicine (excluding compounded medicinal oils)	Free	—	308	Caustic potash ..	5	3
	Earthnut oil ..	5	2	310	Potassium carbonate, crude ..	Free	—
	Rape-seed oil, cottonseed oil, linseed oil, maize oil ..	5	2		Potassium carbonate, refined ..	2	3
	Olive oil ..	15	2	311	Caustic soda ..	2.50	3
	Palm oil ..	2.50	2	313	Sodium carbonate ..	0.50	3
118	Castor oil ..	5	2	314	Sodium bicarbonate ..	Free	—
	Gums, gum-resins and resins (for medicinal use and other, including copal, crude or purified turpentine, etc.) ..	Free	—	315	Ammonium chloride, ferrie chloride, mercurous chloride ..	Free	—
119	Natural balsams for medicinal or other use ..	Free	—	316	Potassium chlorate ..	Free	—
120	Vegetable extracts, including opium, for medicinal, or other uses ..	Free	—	321	Copper sulphate ..	2.50	3
121	Camphor, crude and refined, including synthetic camphor ..	Free	—		Ferrous sulphate ..	0.50	3
122	Oil of turpentine ..	5	3		Magnesium sulphate ..	Free	—
140	Plants or parts of plants used in medicine, not otherwise mentioned ..	Free	—		Potassium sulphate ..	1	3
142	Plants and parts of plants used in perfumery, not otherwise mentioned ..	Free	—		Sodium sulphate ..	0.50	3
		10 p.c. ad val.	—	322	Alums (ammonium, sodium and potassium) ..	1	3
SECTION III.				325	Ammonium carbonate ..	Free	—
173	Borax, crude and refined ..	Free	—		Magnesium carbonate ..	Free	—
190	Coal tar ..	Free	—	330	Potassium permanganate ..	4	3
192	Products from the distillation of coal tar: crude light oils, phenol, lysol, cresol and similar products; heavy oils, anthracene, creosote, and all tar derivatives not otherwise mentioned	Free	—	331	Silver nitrate ..	Free	—
193	Products of the distillation of light oils derived from coal: benzol, toluene, xylol, etc. (distilling between 75° and 175° C.)	10 (per 100 litres)	2	339	Crude tartar ..	Free	—
196	Paraffin wax and crude vaseline	Free	—	340	Sodium potassium tartrate ..	Free	—
				346	Anilin and auilin salts for dye manufacture; toluidene, methylanilin, dimethylanilin ..	Free	—
SECTION IV.				347	Hydroquinone ..	Free	—
202	Cereal flours prepared for feeding children and for culinary use: with sugar or cocoa ..	30	3	348	Resorcin ..	Free	—
	other ..	12	3	350	Benzoic acid ..	Free	—
252	Liquorice juice ..	12	3	354	Paraffin wax and vaseline ..	Free	—
253	Liquorice juice aromatised, with the addition of sugar or other substances (except alcohol), pectoral pastes and gums ..	40	3	355	Saccharin ..	Prohibited.	3
257	Mineral waters, natural or artificial ..	10	—	360	Formaldehyde ..	35	5
264	Wines prepared with aromatic plants, quinine or other medicinal substances: Imported in bottles ..	240	—	361	Hexamethylenetetramine ..	50	5
	otherwise ..	180	—	363	Acetic ether ..	5	3
				367	Ether ..	5	3
				368	Collodion ..	30	5
				369	Chloroform, chloral, chloral hydrate ..	Free	—
				370	Bromoform ..	Free	—
				371	Iodoform ..	Free	—
				374	Creosote, creosote carbonate ..	5 p.c. ad val.	—
				375	Guaiacol, guaiacol carbonate ..	5 p.c. ad val.	—
				376	Salicine ..	Free	—
				377	Alkaloids, natural: aconitine, atropine, caffeine, cocaine, codeine, morphine, diacetylmorphine, nicotine, quinine, strychnine, theobromine, and others, including their salts ..	Free	—
				380	Waters distilled from flowers and plants, used exclusively in pharmacy:—		
					Containing alcohol ..	Chargeable as alcoholic preparations (No. 269).	—
					Non-alcoholic ..	Free	—
				381	Serums and vaccines ..	Free	—
				382	Compounded medicines, medicinal preparations put up in doses, pharmaceutical specialities (If containing alcohol, the duty chargeable must not be less than that applicable to alcoholic preparations, No. 269.)	20 p.c. ad val.	—

Tariff No.	Article	Minimum Rate of Duty per 100 kilos. Francs	Coefficient of Increase
383	Solutions of chemical products containing alcohol	Dutiable as alcoholic preparations, No. 269.	—
384	Chemical products not otherwise mentioned	Free	—
389	Ammonium sulphate	1.50	3
396	Coal tar dyes, dry or in paste, anilin dyes, synthetic indigo, and others	Free	—
442	Gelatin, in powder	10	3
	in leaves or sheets: (a) metallised, iridescent, watered, varnished or glazed	20	3
	(b) other	10	3
448	Vegetable essences or natural essential oils, not otherwise mentioned:		
	(a) containing alcohol (the duty must not be less than that chargeable under No. 269);	10 p.c. ad val.	—
	(b) non-alcoholic:		
	(1) Used exclusively in medicine	Free	—
	(2) others	10 p.c. ad val.	—
449	Artificial essences, not otherwise mentioned, used in perfumery, confectionery, the manufacture of liqueurs, etc.:		
	(a) containing alcohol (the duty must not be less than that chargeable under No. 269);	10 p.c. ad val.	—
	(b) non-alcoholic	10 p.c. ad val.	—
451	Perfumed fats, imported in containers of at least 10 kilos net weight	10 p.c. ad val.	—
452	Perfumery, including all substances and mixtures not specially mentioned in the tariff which, by reason of their composition or package, are intended as perfumes, such as: perfumed toilet lotions, mouth washes, hair lotions and dyes, toilet vinegars, aromatised oils, perfumed pastes, pomades, fats, powders, tooth powders, rouges, scented pastilles or papers for burning, etc.:		
	(a) containing alcohol (the duty must not be less than that chargeable under No. 269);	20 p.c. ad val.	—
	(b) non-alcoholic	20 p.c. ad val.	—
	SECTION VI.		
454	Wax in sheets for dental impressions	15 p.c. ad val.	—
457	Soap:		
	(a) perfumed, toilet and medicated soaps:		
	(1) Ordinary, not perfumed soaps, in bars or cakes ..	7	3
	(2) Soap creams, liquid soap and soap powder, hard shaving soap, imported in containers (boxes, flasks, tubes, pots, etc.), the total weight of which does not exceed 250 grams	60	3
	(3) Soap creams and liquid soaps, imported in containers weighing over 250 grams inclusive ..	30	3
	(4) Soap in balls, bars or cakes, imported in boxes containing not more than 3 pieces; toilet soaps wrapped in ornamented paper, tinfoil, cellophane, etc., soap in scales ..	40	3
	(5) Not specified in the tariff	18	3
	(The specified duty is levied on the above articles without any allowance for the containers in which they are put up, such as boxes, cartons, bottles, tubes, pots, tinfoil, etc. The weight of small boxes of rough, undyed wood used for packing certain soaps may, however, be deducted from the dutiable weight.)		
	(b) Other soaps	6	3
458	Liquid oils and fats saponified by alkalis, Turkey red oil ..	4	3

Tariff No.	Article	Minimum Rate of Duty per 100 kilos. Francs	Coefficient of Increase
	SECTION VIII.		
578	Cotton wool, for medical uses ..	15	3
	SECTION IX.		
708	Rubber bulbs for inhalers; syringes, enemas, rubber gloves, teats, etc.	300	4
714	Air cushions, water bottles, ice bags of rubber	300	4
	SECTION XV.		
989	Tubes of tin for putting up colours, chemical and pharmaceutical products, etc.:		
	(a) of natural metal	35	4
	(b) varnished, coloured, etc. ..	50	4

Trade-marks Applied for

The figures in parentheses refer to the classes in which the marks are grouped. A list of classes and particulars as to registration are given in "The Chemist and Druggist Diary," 1923, p. 289.

(From "The Trade-marks Journal," February 21, 1923.)

"HUMAGSOLAN" on label device, with facsimile signature "Prof. Dr. Kuntz" ("Prof. Dr. Kuntz" disclaimed); for medicinal chemicals (3). By Aktiengesellschaft für Chemische Produkte vormals H. Scheidemandel, 35 Dorotheenstrasse, Berlin, N.W.7. 429,166. (Associated.)

"DISMENOL"; for medicinal chemicals (3). By T. Madlener-Gavin, 9 Rue du Mont-Blanc, Geneva, Switzerland. 432,802.

"VIO-RAY" in device form; for electrical instruments for producing violet rays for curative purposes (11). By Vio-Ray Electric Co., Ltd., 114 Charing Cross Road, London, W.C.2. 425,693.

"BROOKS," "DON'T WEAR A TRUSS" and portrait ("Brooks" disclaimed); for a rupture appliance (11). By Brooks Appliance Co., Ltd., 80 Chancery Lane, London, W.C.2. 431,709. (Associated.)

"BOVO-LACTIN"; for all goods (42). By Food Products, Ltd., 11 Arundel Street, Strand, London, W.C.2. 431,946.

Device of lady reclining on couch over word "REKAMIER" ("Recamier" disclaimed); for perfumery, etc. (48). By Margaret L. Newman, 158 Strand, London, W.C.2. 429,043. (Associated.)

"CHARDELIA"; for perfumery, etc. (43). By H. Chard, 53 Cowper Street, Ipswich. 432,532.

"VENUS"; for brushes (50). By M. Neuhafer & Levi, Ltd., 11 Fore Street, London, E.C.2. 432,388.

(From "The Trade-marks Journal," February 28, 1923.)

"LEDINOL"; for goods (1). By Goodlass Wall & Co., 42 Seel Street, Liverpool. 430,606.

"RAILENCO"; for chemicals (1). By J. O. Miles, 47 Mile End Road, London, E.1. 432,022.

"ON GUARD," with picture of dog guarding baby; for chemicals (2). By Lever Brothers, Ltd., Port Sunlight, Cheshire. 432,372. (Associated.)

"NITSOLENE"; for vermin destroyers for animals (2). By Wrights' Preparations, 67 Wigmore Street, London, W.1. 432,620.

"IDOF" on oval shape; for insect destroyers (2). By J. Hertz, 9 Mincing Lane, London, E.C.3. 432,946.

"CUTINOL"; for an ointment (3). By W. Smith, 6 Hubert Street, Great Harwood, nr. Blackburn. B427,985.

Device of holly spray; for powders and cigarettes containing no tobacco for asthma treatment (3). By F. Gilderdale, 32 Treherne Road, High West Jesmond, Newcastle-on-Tyne. 429,380.

"ORTOL"; for medicinal preparations for eye diseases (3). By Arch, Beesley & Co., 5 Roman Camp Road, Market Harboro'. 429,831.

"ZIETTA"; for medicinal chemicals (3). By G. Boulton, 44 Old Road West, Gravesend, Kent. 431,076. (Associated.)

"ZORNOMOR"; for ointments (3). By J. H. Allen, Stray Park, Camborne, Cornwall. 431,454.

"INAVA"; for medicinal chemicals (3). By Compagnie Nationale de Matières Colorantes and de Produits Chimiques, 134 Boulevard Haussmann, Paris. 431,658.

Trade Report

42, Cannon Street, E.C.4, April 26

BUSINESS in all sections of the produce markets still continues very dull, with few important price changes. English castor oil has advanced a further £2 per ton; hamomiles are inquired for, but are practically non-existent; balsam tolu remains firm and scarce; Japanese refined camphor is inactive and rather lower; menthol is dearer as our report closes for press; mercury is weak and has declined further; Turkish opium has been active at the source of late; and orange peel has been selling at rather better prices; henna and areca are easier; senega is neglected. Among pharmaceutical chemicals prices are fully maintained, but business has been very quiet. Benzoic acid and benzoate of soda are dearer; citric and tartaric acids are fairly active and tending higher. Bromides maintain their previous firmer tone; phenacetin and phenazone are firm. Among industrial chemicals business continues somewhat disappointing. Acetone is steadier; lithopone is again higher; carbolic acid crystals have been quieter and the turn easier; copper sulphate is irregular.

Higher	Firmer	Easier	Lower
Castor oil (Eng.)	Benzoic acid	Anise star oil	Camphor
Peanut oil (deod.)	Citric acid	Areca (Jp. slabs)	
Lithopone	Coconut (desicc.)	Bergamot oil	Lined oil
Alum starch	Geranium oil	Caraway seed	Mercury
Alum powder (U.S.)	Mint oil (c.i.f.)	Carbolic acid	Palm oils
Menthol	Musk xylol	Chillies	Pitch
Gar	Orange peel	Clove oil	Rubber
Yam bean oil	Sodium benzoate	Henna	Turpentine
Castor oil	Tartaric acid	Lemongrass oil	
		Orange oil (Sic.)	
	Steadier	Oxalic acid	
		Petroleum	
	Acetone	Jellies	
		Potash prussiate	
		Safrol	

Cablegrams

NEW YORK, April 25.—Business is dull. Peppermint in tins has advanced to \$2.80 per lb., and Mexican sarsaparilla to 29c. Short buchu is also dearer at 90c., and antipyrine has advanced to \$3.00 per lb. Menthol 10c. per lb. lower at \$7.80; senega has declined to 8c., and balsam peru to \$1.65. Hexamine is cheaper 80c. per lb.

BERGEN, April 24.—The total catch of cod for the whole of Norway since the opening of the season amounts to 34,700,000, against 31,000,000 for the corresponding week of last year, and the yield of steam-refined medicinal oil is 66,408 hectolitres, against 57,378 hectolitres for the same period of 1922. Price of finest new medicinal steam-refined oil of 1923 crop is quiet at about 95s. per barrel, c.i.f. London. The Lofoten fishing is now closed.

Exchange Rates on London

The following is a list of Continental and other exchange rates against the pound sterling on London prevailing at 4 p.m. on Wednesday:—

Par value	April 18	April 25
Amsterdam, chqs. fl.	12.107	11.873-11.881
London, .. marks	20.43	138.000-142.000
Basel, chqs. fr.	25.221	81.50-81.60
Geneva, .. fr.	25.221	16.5d.-16.7d.
Constantinople, ..	110	700-730*
Brussels, .. drchs.	25.221	393-398
Paris, .. lire	25.221	941-941
Porto, sight escudo	531d.	21d.-21d.
Madrid, sight pes.	25.221	30.38-30.50
Buenos Aires, ..	4.861	4.711-4.711
New York, cable \$	4.861	4.651-4.651
San Francisco, ..	25.221	70.35-70.45
Manila, .. t.t. dollar	25.221	281d.-281d.
Switzerland, ..	25.221	25.64-25.66
Yokohama, .. kr.	24.02	320.000-340.000
Shanghai, T.T. yen	24.58d.	25.1d.-25.1d.

* Nominal.

Crude Drugs, etc.

ANTIMONY continues firm, with a fair demand all round, and supplies remain restricted, so that the tendency is, if anything, to advance. English regulus

special brands stand at £36 15s. to £38, while foreign refined is nominally quoted £27 10s., delivered warehouse. Crude is quoted at £24 per ton c.i.f.

AGAR-AGAR.—The exports from Japan during January of the past three years were as follows:—

	1921	1922	1923
Kin	34,167	65,277	196,687
Yen	48,903	90,083	415,540

Small arrivals are now taking place, but holders are firm, asking about 5s. to 5s. 3d. per lb. landed for No. 1 Kobe; to arrive, 4s. 5d. c.i.f. is quoted.

ARECA.—Owing to arrivals, prices are rather easier, small lots offering at about 37s. 6d. per cwt.

BALSAM CANADA is firmer at 6s. 9d. per lb. on the spot.

BALSAM TOLU remains firm and scarce on the spot at from 3s. 10d. to 4s. per lb.

CAMPHOR (CRUDE).—Chinese on the spot is offered at 3s. 11d. to 3s. 2d. per lb., and April-May shipment is 2s. 10½d. c.i.f.

CAMPHOR (REFINED) is inactive and lower, with Japanese 2½-lb. slabs offering at 3s. 6d. per lb., and April-May shipment at 3s. 4½d. c.i.f.; ¼ oz. tablets are 4s. 4d. per lb.

The exports from Japan during January of the past three years were as follows:—

To	1921	1922	1923
	Piculs	Piculs	Piculs
British India ..	53	117	869
Great Britain ..	73	470	323
France	—	535	368
Germany	—	76	1,197
United States ..	152	818	2,530
Australia	2	38	16
Other Countries ..	35	87	55
Piculs	315	2,141	5,358
Yen	86,614	393,606	993,457

CANTHARIDES.—Russian is quoted at 7s. per lb. to arrive. Chinese continues slow of sale at about 4s. 8d.

CASTOR OIL.—The Hull makers have advanced their prices by a further £2 per ton to £61 per ton for pharmaceutical, to £56 for first pressing, and to £55 for second pressing, including barrels, ex mills Hull. Under one ton lots are 20s. per ton extra. Cases of 4 x 20-lb. tins are 6s. per cwt. and cases of 4 x 40-lb. tins 4s. per cwt. extra. Medicinal Italian in tins and cases is quoted at 73s. per cwt.

CHAMOMILES continue to be inquired for, but they are non-existent on the spot; 525s. per cwt. is asked for a bale.

CHAULMOOGRA OIL is unchanged at 3s. 6d. per lb. for spot lots.

COD-LIVER OIL.—Our Bergen correspondent writes on April 21 that the Lofoten fishing is now closing. The total output of all the Norwegian fisheries up to date is as follows:—

	Catch of Cod	Yield of steam refined cod-liver oil	Livers for Crude oil
		cod-liver oil (Hect.)	Crude oil (Hect.)
April 14, 1923	32,900,000	64,001	11,522
April 15, 1922	28,900,000	52,628	9,008
April 16, 1921	30,700,000	49,113	6,966
April 17, 1920	28,235,000	72,300	3,808
April 19, 1919	16,561,000	21,930	1,946

The fishing at Finmarken has commenced under favourable conditions, with better results than for several years past. Market for finest medicinal oil is quiet at about 95s. per barrel c.i.f. London.

GLUCOSE.—American crystal corn syrup for delivery during April-June is quoted at 29s. 6d. per cwt. net, ex store and/or quay, duty paid.

HENNA is slightly cheaper, good green leaf offering at 60s. per cwt. c.i.f. London.

LEMON JUICE is offered at from 1s. 11d. to 2s. per gallon on the spot.

LIME JUICE.—The c.i.f. price quoted for concentrated West Indian is from £22 to £23 per pipe of 108 gallons. West Indian raw is quoted at from 2s. to 2s. 1d. per gallon, and clarified at from 2s. 3d. to 2s. 4d. Demand is slow, as the season does not commence until about June.

LIQUORICE JUICE.—Fair supplies are available on the spot, and prices are steady, pure Italian block offering at from 95s. to 97s. 6d. per cwt. on the spot, and slightly less for quantity.

MENTHOL is dearer as our report closes for press. In the early part of the week the market was nominally 32s. per lb. for Kobayashi-Suzuki on the spot, but on Wednesday up to 33s. 6d. per lb. was paid, and holders were asking 34s. It is reported that 20 cases have been sold for April-May shipment at 31s. 6d. c.i.f. Fair size quantities have arrived this week.

The exports from Japan during January of the past three years were as follows:—

To	1921	1922	1923
British India	2	15	6
Great Britain	25	—	18
France	—	—	7
Germany	—	—	—
United States	115	47	149
Other Countries	1	1	18
Piculs	139	61	198
Yen	123,878	48,822	363,569

MERCURY has remained inanimate, buyers being still indifferent, despite the views expressed in most quarters that about the worst of the slump has been seen. Market closes weak at £9 12s. 6d. to £9 15s. Export business is extremely slow, and, the available supplies being of fairly good dimensions, the tone is still on the easy side. The imports for last month amounted to 5,399 bottles, against 1,247 bottles for March last year, the aggregate for the three months representing 12,871 bottles, compared with only 4,055 bottles for the first quarter of last year. Arrivals this week comprise 15,000 lb., and 21,500 lb. from Spain.

OPIUM is steady, but there is practically no business reported this week; last sales were made at about 14s. 6d. per lb. spot for 12 per cent.; to arrive, 12 per cent. is quoted at from 12s. 9d. to 13s. per lb. c.i.f.

CONSTANTINOPLE, April 17.—"During the period, April 3 to date, arrivals were as follows:—Druggists' 3,349 cases; 'softs,' 125; Malatia, 15. The stock was:—Druggists', 515 cases; 'softs,' 73; Malatia, 10. During the first four days following the despatch of our last report, the market was very quiet, when suddenly important buyers appeared from all parts, with the result that during the past fortnight 156 cases were sold. Of this total, 159 cases of druggists' realised 1,110 to 1,200 piastres, and 7 cases of 'softs,' 1,400 to 1,500 piastres, per oke. Although we believe that not one of the cases purchased was destined for Japan, persistent rumours are circulating to the effect that Japan has made several important purchases and has also granted the necessary import licences. The demand continues to be brisk; there is a complete absence of opium with a high content of morphine. We know that last week about 140 cases were sold in Smyrna at 1,150 to 1,170 piastres per oke, leaving only 30 to 40 cases in stock. We are also informed that the recent frosts have caused damage to the sowings, but we cannot confirm these rumours, and await definite information."

ORANGE PEEL has been selling at rather better prices of late; last year's crop of machine-cut Tripoli strip can be had at from 6d. to 8d. per lb., and for new crop just arrived 10d. per lb. is asked.

QUILLAIA.—Whole is quoted on the spot at about 31s. 6d. per cwt.; 907 bales have arrived in London.

RUBBER has again declined, and is fully $\frac{1}{2}$ d. per lb. lower. The heavy liquidation mentioned in our last week's report has continued, and on Monday spot rubber was sold at 1s. 3d., against 1s. 5d. a fortnight ago. There has since been a slight recovery, and 1s. 3 $\frac{1}{2}$ d. has been paid. At present, however, a very nervous tone prevails, and both consumers as well as speculators are displaying extreme caution before operating. We understand that steps are being taken by the Colonial Office to prevent further leakage in the granting of export licences in the East; this will, no doubt, have a marked effect on the exports from Singapore in the near future. America, in spite of the rapid decline in values, has shown little inclination to buy, and appears to be following the London market, instead of leading it, as is generally the case. The deliveries from London continue on a large scale, and last week 2,549 tons left the warehouses.

Arrivals totalled 1,141 tons, with a decrease of 1,408 tons in the stocks. The London stock now stands at 60,315 tons. Quotations (Wednesday, 5 p.m.): No. 1 standard crêpe and ribbed smoked sheet, spot and May 1s. 3 $\frac{1}{2}$ d.; June, 1s. 3 $\frac{3}{4}$ d.; July-September, 1s. 4 $\frac{1}{2}$ d.; October-December, 1s. 4 $\frac{1}{2}$ d. Hard fine para is again lower at 1s. 3d. per lb. sellers.

SARSAPARILLA.—An arrival of 14 bales genuine grey Jamaica has taken place; 4s. 3d. per lb. is asked. Twenty-three bales Mexican have also arrived; this description is held for 1s. 9d. per lb.

SENEGA continues neglected at about 3s. 4 $\frac{1}{2}$ d. per lb. on the spot.

SHELLAC is inactive, the spot market for usual standard TN Orange being 330s. to 335s. per cwt.

STARCH PRODUCTS.—American cornflour (maize starch powder) is quoted at 15s. 10 $\frac{1}{2}$ d. per cwt. ex store London, Liverpool, Manchester, for April-June delivery. Rice starch crystals is 40s. per cwt. for English, and 34s. for Continental. Dutch farina on the spot is 14s. 10 $\frac{1}{2}$ d. per cwt., and 13s. 7 $\frac{1}{2}$ d. f.o.b. for prompt shipment. Superior Dutch dextrin is 22s. 6d., and No. 2 20s. to 21s. per cwt. on the spot.

WAX, CARNAUBA. is dearer, fatty grey offering at from 97s. 6d. to 100s., and chalky at 95s. to 97s. 6d. per cwt.

Seeds, Spices, etc.

CHILLIES are neglected and rather cheaper. Japanese are quoted at 155s., Mombasa at 95s., Sierra Leone at 90s., and Zanzibar at 90s. per cwt.

CLOVES.—Fair Zanzibar are quiet on the spot at 1s. per lb. and slightly cheaper prices are quoted forward. March-May shipment has been sold at 11 $\frac{1}{2}$ d. to 11 $\frac{3}{4}$ d., and May-July shipment at 11 $\frac{1}{2}$ d. per lb. to 11 $\frac{3}{4}$ d. c.i.f. According to the wharf statistics, the landings were 5,770 bales and the deliveries 436 bales, leaving a stock of 7,408 bales, against 11,720 bales in 1922.

COCONUT (DESICCATED) is firmer and active, the sales including fine at 47s. to 48s. and medium at 48s. per cwt.; afloat has been sold at 45s. 6d., April-May shipment at 44s. 6d., and May-June at 44s. c.i.f.

GINGER.—Cochin continues scarce; fair washed rough is offered at 72s. 6d. per cwt., and wormy at 67s. 6d. on the spot. Japanese for March-April and April-May shipment is quoted at 65s. c.i.f., the spot value being 65s. also. Jamaica is unchanged, small offering at 190s. and bold at 220s.

PEPPER has continued dull throughout, the value of fair black Singapore being 4 $\frac{1}{2}$ d. per lb., Lampong 4 $\frac{1}{2}$ d., Tellicherry black 4 $\frac{1}{2}$ d., and Aleppy 4 $\frac{1}{2}$ d. per lb. on the spot; ordinary white Muntok realises 6 $\frac{3}{4}$ d. per lb., and sellers of May-July quote 6 $\frac{1}{2}$ d.; Singapore is 6 $\frac{1}{2}$ d. spot and April-June 6d. c.i.f.

SEEDS.—The following are current spot quotations: ANISE, Spanish, 95s. per cwt.; Russian, 68s. per cwt. CANARY SEED, Mazagan, £18 per ton; Larache, £17 per ton; Tangier, £22 per ton; Saffi, £17 per ton. CARAWAY SEED, Dutch, 142s. 6d. per cwt.; Morocco, 95s. CORIANDER SEED, sound, 57s. 6d. per cwt.; wormy, 32s. 6d. to 45s. per cwt. CUMIN SEED, 145s. per cwt. DILL SEED, 21s. 6d. to 22s. 6d. per cwt. FENNEL SEED, 65s. per cwt. on spot, 45s. c.i.f. FENUGREEK SEED, 18s. per cwt. HEMP SEED, 13s. 3d. per cwt. LINSEED, Moroccan, 22s. 6d. per cwt. MUSTARD SEED, good English, yellow, 31s. to 34s. per cwt.

Essential Oils

THE demand appears to have improved during the week, and inquiry generally is good. French products are very firm, and replacement prices appear to be in excess of present spot values. Bergamot and Sicilian orange are cheaper c.i.f. to arrive for certain brands, but spot values have not kept pace with recent c.i.f. prices, and actually the position here is unchanged. Lemon has been selling on the spot at relatively cheap rates. Star anise is extremely difficult to move at current quotations. Clove oil is slightly easier.

The following are the quantities and values of the essential oils (other than turpentine) imported into, and re-exported

rom, the United Kingdom for March, and for the three months ended March 31, 1920-1923:—

	1921	1922	1923
March Imports (other than turpentine) lb.	160,890	230,968	339,497
" " " value	£41,406	£82,101	£86,391
Three months Imports—(January-March) lb.	467,752	776,855	1,024,801
" " " value	£147,885	£212,678	£241,913
March Re-exports (other than turpentine) lb.	33,452	87,434	78,305
" " " value	£16,123	£49,921	£28,454
Three months Re-exports—(January-March) lb.	112,353	241,613	205,224
" " " value	£72,382	£109,919	£83,215

ANISE (STAR).—"Red Ship" on the spot is easier at 1s. 10d. to 1s. 11d. per lb. Round lots have been turned over by weak holders at less.

BAY.—West Indian distilled has been in demand on the spot, holders quoting from 10s. to 11s. per lb. and upwards as to quality.

BERGAMOT.—For certain brands lower quotations have been cabled during the week at from 11s. 2d. to 11s. 6d. per lb. c.i.f. to arrive. Spot is obtainable at from 1s. 6d. to 12s. 6d. per lb. for 37 to 39 l.a. according to seller and quantity.

BOIS DE ROSE (FEMELLE).—The firm spot position is fully maintained at 10s. 3d. per lb., in original drums or new shipment. Until the old stocks are liquidated, supplies may be obtained at less, but the present price quoted f.o.b. French Guiana is 78 to 80 fr. per kilo about 10s. 3d.).

CAMPBOR.—White essential of good quality is quoted at 85s. per cwt. in cases, and 80s. in drums.

The exports from Japan during January of the past three years were as follows:—

	1921	1922	1923
Piculs	1,218	912	1,984
Yen	19,605	26,661	36,713

CASSIA is quiet and unchanged at 8s. 3d. per lb. on the spot for 80 to 85 c.a. Spot sales have been made at 8s., at which there are buyers. Stocks are not unduly large.

CINNAMON.—Ceylon leaf is quiet and unchanged at 1s. per oz. on the spot, and 3½d. c.i.f. to arrive. Fair sales of Mysore have been made on the spot, and shipment afloat is quoted at 6s. 6d. c.i.f.

CITRONELLA.—Ceylon is steady at 3s. 2d. per lb. on the spot. The price to arrive is 2s. 11d. c.i.f. Java is unchanged at 4s. per lb. on the spot, and 3s. 11d. c.i.f. quoted to arrive.

CLOVE.—English distilled is a shade easier on the spot from 6s. 9d. to 7s. per lb. Low-testing oil is obtainable at 6s. 6d.

GERANIUM (BOURBON).—Spot is scarce and holders quote out 30s. per lb. The May shipment is quoted at 206 fr. per kilo (about 27s. 6d.) c.i.f. Marseilles. There are sellers of prompt shipment below 210 fr. (28s. to 3s. 6d.) c.i.f. Marseilles.

JUNIPER BERRY is in fair demand at from 5s. to 5s. 3d. per lb.

LEMON.—Fair sales have been made during the week. Spot or c.i.f. to arrive is practically as last quoted at 2s. 10d. to 3s. 2d. per lb.

LEMONGRASS is very dull and tending easier at 2½d. per oz. The c.i.f. price to arrive is cheaper at 2¾d.

LIME.—West Indian distilled is firm on the spot at 3s. 6d. per lb. as to seller. Hand-pressed has been selling, and 7s. 6d. to 8s. 6d. per lb. is now asked to seller.

LINALOE.—Mexican wood oil, for which there has been no inquiry, is quoted at 9s. 6d. to 9s. 9d. per lb., which is unchanged.

MANDARIN continues very firm at the source, from 1s. 6d. to 25s. and upwards per lb. c.i.f. being quoted.

MINT.—Japanese dementholised Kobayashi-Suzuki is unchanged at about 6s. per lb. on the spot. The c.i.f. price to arrive is slightly firmer at 5s. 8d.

The exports from Japan during January of the past three years were as follows:—

	1921	1922	1923
Piculs	139	73	158
Yen	60,237	18,044	66,555

NEROLI.—Good French oil has been offered on the spot at 20s. per oz.

ORANGE.—Lower Sicilian prices have been cabled this week; for certain brands 11s. to 11s. 6d. c.i.f. per lb. is now asked, the top price being apparently 11s. 10d. c.i.f. Spot holders quote 11s., and less in some directions. West Indian sweet is quoted at from 9s. to 10s. per lb. as to seller. Some of the recent shipments, it is reported, have been of inferior quality. Bitter is 9s.

PATCHOULI.—Usual Penang quality is about steady at 28s. 6d. to 29s. per lb. Oil of inferior solubility is obtainable at about 26s. to 28s. Mysore oil has been sold at 35s. in small lots.

PEPPERMINT.—American natural is unchanged on the spot at from 12s. 6d. to 13s. per lb. as to seller. A firmer report has been received from U.S., and our cable intimates an advance of 10c.

PETITGRAIN.—The price of Paraguayan, it is anticipated, is likely to advance, as distillation has lately been curtailed, owing to the low prices that have been current. For new shipment oil, 7s. per lb. is quoted for single-case lots, but holders of old stock may shade this while supplies last.

ROSEMARY.—Importers of Spanish say they can barely cover in at the prices being paid on the spot. For good quality oil 1s. 7d. per lb. is quoted, with practically no business at the price.

SANDALWOOD.—B.P. East Indian is selling steadily for export. Spot holders quote 25s. per lb.

SPIKE.—Spanish has been in good demand, with spot sales at about 2s. 9d. per lb. in drums.

Aromatic and Synthetic Chemicals, etc.

Amyl salicylate ..	2/10 to 3/-	Heliotropine ..	6/6 to 7/-
Aubepine ..	12/- to 14/-	Iso-eugenol ..	17/6
Benzaldehyde f.f.c.	2/9 to 3/-	Linalol ..	16/- upwards
Benzyl acetate ..	2/6 to 2/7	Linalyl acetate ..	21/- upwards
" alcohol ..	2/2 to 2/3	Methyl salicylate ..	2/6
" benzoate ..	2/7 to 2/9	Musk xylol ..	9/- to 9/6
Bromstyrol ..	9/- to 9/6	Phenylethylalcohol	17/6 to 20/-
Citral ..	9/6 to 10/6	Safrol ..	2/- to 2/3
Coumarin ..	14/6 to 15/-	Terpinol ..	2/9 to 3/-
Eugenol ..	11/- to 12/-	Vanillin ..	23/-
Geraniol (Java citronella) ..	5/6 to 9/6		

Pharmaceutical Chemicals, etc.

FROM all quarters there is the report that business has been very quiet during the past week. Spot prices are, however, fully maintained and the market generally keeps firm. This is due to the position on the Continent, where quotations are at much higher prices and supplies rather difficult to obtain. The position in occupied Germany is unchanged, and nothing is coming in from that quarter. Benzoates are dearer this week.

ACETANILIDE is quoted on spot firmly at 1s. 7d. to 1s. 8d. per lb., with business slow.

AMIDOPYRIN is quoted at the unchanged rate of 13s. 6d. per lb., with very little doing.

ASPIRIN continues to meet with a fair volume of business, with the spot rate showing no sign of falling from the level of 3s. 3d. per lb.

BARBITONE is quoted on spot at 18s. to 18s. 6d., but there are very few buyers.

BENZOIC ACID is firmer on spot at about 2s. 3d. per lb.; offers f.o.b. the Continent are much dearer.

BENZONAPHTHOL, 5s.; betanaphthol, resublimed, 2s., and benzaldehyde, at 3s. per lb., are quiet and unchanged.

BROMIDES.—The firmer tone reported last week is well sustained. This movement is due to the high prices asked for shipment from the Continent. Ammonium, fully 9d. per lb.; potassium, crystals and granular, 8½d. to 9d. per lb.; sodium, crystals and granular, 9d. to 10d. per lb.

CALCIUM LACTATE is offered at about 2s. per lb., but this price does not seem very steady.

CHLORAL HYDRATE has been selling in small lots, with the price in the region of 4s. to 4s. 3d. per lb. for duty paid.

CITRIC ACID.—B.P., crystals. The lowest offers on spot seems to be about 1s. 9d. per lb. Offers for shipment are firm at 1s. 11d. per lb., less 5 per cent. The tone is certainly tending to higher prices.

CREOSOTE, B.P., which eased off last week, is now

fairly steady at about 2s. 3d. to 2s. 4d. per lb., but the market remains slow.

CREOSOTE CARBONATE is more or less nominal, on a sluggish market, at about 10s. per lb.

GUAIACOL CARBONATE is quoted at 8s. 3d. per lb., but parcels could be obtained at much cheaper rates.

HEXAMINE keeps firm on spot, and the Continental position is also strong; about 4s. 3d. per lb. is the lowest spot offer.

HYDROQUINONE continues to be inquired for, with the spot quotation steady at about 3s. 6d. per lb.

METHYL SALICYLATE is very steady, and good business has been done at about 2s. 6d. per lb.

METHYL SULPHONAL is maintained at last week's higher price of 14s. to 15s. per lb., but there is very little going.

PARAFORMALDEHYDE is steady on a dull market, as quoted at about 4s. per lb.

PARALDEHYDE is dear as quoted for shipment from the Continent, and the spot offers are now seldom below 1s. 7d. per lb.

PHENACETIN is very firm on spot, with nothing much on offer below 6s. 4d. to 6s. 6d. per lb.

PHENAZONE keeps steady on spot, at about 7s. 6d. per lb., and quotations from the Continent make the price here firm.

PHENOLPHTHALEIN continues to hold firm at last week's advanced rates, with most dealers asking 5s. 3d. per lb., but this might be shaded.

POTASSIUM PERMANGANATE, B.P.—There is nothing to add to our comments of last week. Spot supplies are short, and offers from the Continent are dear. On spot, 10½d. to 11d. per lb.

SALICYLIC ACID keeps firm, with good inquiry on the market; quoted at 2s. 2d. per lb.

SALOL has not been the source of much business, but prices keep steady at 2s. 9d. to 3s. per lb.

SODIUM BENZOATE has advanced to 2s. 4d. per lb. here, as, Continental rates have moved up considerably. Imports could not be made at the price quoted.

SODIUM DIETHYLBARBITURATE is maintained on spot at 18s. 6d. per lb., but business has been very slow.

SODIUM SALICYLATE.—On spot there is very little offered below about 2s. 7d. per lb. for crystals or powder. Possibly business done might be at a shade cheaper.

SULPHONAL continues to be offered at 14s. 6d. on spot, with Continental quotations on a rather higher parity.

TANNIC ACID.—Levies B.P., is available on spot, as offered at 3s. 6d. per lb., but there is not much demand.

TARTARIC ACID, B.P. CRYSTALS.—This market has been fairly active so far as inquiry goes during the past week, and the price seems firm at 1s. 3½d. per lb. Shipment offers are at about this figure also.

Industrial Chemicals, etc.

London, April 25.

CURRENT prices quoted on spot show but little change on the week, and the tone generally is still firm. Business, however, has been very disappointing, with the market bordering on stagnation in many items. The position as regards supplies from the occupied areas of Germany is so far unchanged.

ACETIC ACID has hardly been asked for, but, owing to shortage of spot supplies, prices are well maintained; 80 per cent. technical and pure, £47 to £48 per ton; 98 per cent. glacial, £60 in casks and £75 per ton in demijohns, ex wharf, London.

ACETONE is steadier at last week's cheaper rates, but there has been little inquiry. On spot, British Government specification is about £123 per ton.

ALUM.—Lump, in bags, is quoted at about £11 per ton with the market dull.

AMMONIUM (ANHYDROUS) continues to be well inquired for as the summer season approaches, and the price is steady at 1s. 5½d. to 1s. 6d. per lb.

ARSENIC.—White Corish powder is much the same as before, there being but little offering, so that, in spite of the extremely cautious demand, the price has been easily maintained near £72 per ton delivered London. It is very difficult to get reliable quotations for imported, and reports as to the terms quoted by shippers are con-

tradictory. Grecian for forward shipment could doubtless be secured at around £60 per ton c.i.f. home ports. Arrivals comprise 463 cwt. from Portuguese East Africa.

BLEACHING POWDER does not meet with much business; dealers are offering Continental at about £11 per ton for 35 to 37 per cent. chlorine.

COPPER SULPHATE.—An irregular tendency continues, and export business is moderate only. Makers' terms vary considerably, some keen competition being apparent in certain directions, while it is believed that orders have been accepted down to £26 10s. f.o.b. for casks, although some of the larger makers are asking £27 to £27 10s. The March imports made a very good showing, amounting to 6,076 tons, against 6,664 tons for the same month last year. The aggregate for the three months represents 17,762 tons, as compared with 16,119 tons for the corresponding period of last year.

CREAM OF TARTAR has been fairly active, and the price seems quite firm at about 92s. 6d. to 95s. per cwt., less 2½ per cent., in one-ton lots.

EPSOM SALTS are slow with commercial quality offered at about £5 5s. per ton, in bags.

FORMALDEHYDE is offered ex wharf, London, at about £87 10s. per ton, but sales are slow.

LEAD ACETATE keeps well up to the higher rates quoted last week, and the market is affected by the acute shortage of supplies; brown, £41; white crystals, £40 per ton.

LITHOPONE is once more dearer on spot with not much offered and quotations from the Continent continually advancing; 30 per cent. Continental red seal is now at about £23 per ton.

OXALIC ACID is dull and inclined to be easy as quoted at 6½d. to 6¾d. per lb.

POTASH (CAUSTIC).—Holders of spot are firm in the region of £35 per ton for 88 to 92 per cent. solid, in drums, and a slight advance is not unexpected before the end of the week.

POTASSIUM CARBONATE continues to hold at the recently advanced rates, although business has not been nearly so good; 90 to 92 per cent., £30; 96 to 98 per cent., £34 per ton, for spot goods.

POTASSIUM CHLORATE continues to be quoted at 3d. per lb. on a dull market.

POTASSIUM PERMANCANATE is quite firm, and there is plenty of inquiry for commercial, which is quoted from 10d. and upwards per lb.

POTASSIUM PRUSSATE has met with very little business so far this week, and the market has a weaker tone; it would be difficult to now obtain 1s. 5d. per lb. for export f.o.b.

SODIUM ACETATE is quoted by importers at about £25 10s. per ton for shipment.

SODIUM BICARBONATE is very steady at the British makers' price of £10 10s. per ton, in bags, carriage paid in the United Kingdom.

SODIUM BICHROMATE is unchanged on the week for home trade at the British makers' price of 4½d. per lb.; for export it is slightly more.

SODIUM CARBONATE (washing crystals) continues at the old price of about £5 5s. per ton from dealers, ex store, and from the makers at the same figures, in bags, carriage paid to destination in the United Kingdom.

SODIUM CHLORATE is seldom called for; market is easy at 2¾d. to 2½d. per lb.

SODIUM HYPOSULPHITE has been in moderate demand of late, and the price for photographic pea crystals is quite steady at about £16 per ton, in 1-cwt. kegs; commercial quality, in casks, is at about £10 10s. per ton.

SODIUM PRUSSATE has not improved in demand, and the market is not at all steady as quoted at 8½d. per lb.

SODIUM SULPHIDE is at about level figures, but business has been dull; 60 to 62 per cent. solid, £16, and broken, £16 10s. per ton, in drums; 60 to 65 per cent. concentrated, in casks, about £15 per ton.

COAL-TAR PRODUCTS, ETC.—The items in this section show but little change on the week. Pitch, which is again at cheaper rates in London, is about the only alteration of importance. Business has been very poor throughout. ANILINE OIL AND SALT are now fairly steady at 10d. to 11d. per lb., but there is still little business

about. BETANAPHTHOL is also the source of poor business; the price is at about 1s. 1d. to 1s. 2d. per lb. PITCH is now offered in London at about 185s. per ton, and at this cheaper rate the market does not appear to be at all steady. PURE METHYL ALCOHOL is steady but slow in being taken up at £108 per ton, ex wharf, London. CARBOLIC ACID CRYSTALS have been quieter, and the price is quoted at 1s. 7d. per lb. is hard to obtain to-day. CRESYLIC ACID is dull and unchanged at 2s. 3d. per gallon. CREOSOTE OIL is steady and in fair inquiry with quotations at 10½d. per gallon, naked, f.o.b., in bulk shipment. PYRIDINE is unchanged at 12s. per lb. with sales very light. HEXAMETHYLENE remains at 3s. 9d. per gallon on a very quiet market. DISINFECTANTS stand at the old rate of 3s. 9d. per gallon, barrels free. NAPHTHALENE is well maintained on spot at about £20 to £21 per ton, with Continental offerings dear. Crude, £6 to £11 5s.; crystals, £16 10s.; powder, £16 10s.; balls, £24; tablets, £28; candles, £28, packages free.

Fixed Oils, etc.

BUSINESS generally has not been good, and some products show a falling off in demand and price. Palm oils are moving in buyers' favour at last. Linseed oil has suddenly taken a similar turn. Turpentine has been dull most of the week. Castor oil is again dearer. Cottonseed, palm-kernel and soya-bean are firm markets. ACID OILS.—Further advances are recorded and the market closed quite firm: coconut, 42s.; palm-kernel, 42s.; groundnut, about 40s. COCONUT OIL.—Prices are returned at about the same level as last week, with the market steady: Deodorised, 54s.; Ceylon, 48s. 6d.; Cochin, 51s. COTTONSEED OIL.—Deodorised has jumped up to 51s.; common edible is slightly dearer at 47s. 6d.; soap-making is at the higher price of 46s., and crude is unchanged at 41s., c.i.f. GROUNDNUT OIL closes steady at unchanged rates: Deodorised, 54s. 6d.; crude oriental, 45s. 6d., c.i.f. LINSEED OIL (raw, naked).—After the recent activity, which was mostly on export account, business has been much quieter, and the market closes weak with quoted prices irregular. On spot, 50s.; May, 46s.; May to August, 44s. 3d.; September to December, 41s. per cwt. The last forward positions were especially marked by the decline of the market. Hull, on spot, 47s. 9d.; May, 46s.; May to August, 44s.; September to December, 41s. PALM-KERNEL OIL is firmer, with prices unaltered; deodorised, 51s. 6d.; crude, 46s. 6d. PALM OIL.—After a prolonged spell of activity this market has been much quieter and prices show up at easier rates this week. Lagos has dropped back to 39s. and softs to 38s. 9d.; hards are so cheaper at about 41s. Market at the close was not at all steady. RAPE OIL.—Prices are, so far, unchanged, but the market was weak at the close: Refined, 49s.; crude, 45s. SOYA-BEAN OIL.—Advanced prices are being asked again this week and the market closes firm: Deodorised, 50s.; crude oriental, 44s. 6d., c.i.f. TURPENTINE.—Business in American continues on the slow side and prices have been difficult to maintain and show a further slight decline on the week. On spot, 110s. 6d.; July to December, 87s. Total London stocks stand at about 8,100 barrels of American spirit. The March imports amounted to 909 tons, against 2,463 tons for March last year, the total for the first quarter of this year amounting to 3,305 tons, compared with 4,398 tons in the same period in 1922.

LUBRICATING, MINERAL, AND BURNING OILS, ETC.—There is a change to record and business has been flat throughout. BENZOL remains dull and unaltered at 1s. 7d. per gallon, for makers' works, in buyers' packages. BURNING OIL.—Crude No. 3, 8½d.; No. 2, 8d. per gallon, barrels free. The market shows no change in price, with the demand poor. KEROSENE OIL.—Unchanged rates are quoted, with very little doing. 895 to 910 gravity, £4 2s. 6d.; 950 gravity, £3 10s. per ton, ex tank. SOLVENT NAPHTHAS stand steady, but are not in much request. 90 to 160 and heavy, 90 to 190, both at 6d. per gallon, drums extra. NAPHTHA holds at 1s. 8d. per gallon, naked, at makers' works, with no improvement in demand. PARAFFIN WAX AND SCALE.—The market in wax steady, with quoted prices at 2½d. to 3d. per lb., in bags, according to melting point. Paraffin scale is very firm in America, with the c.i.f. quotation at 1½d. per lb. PETROLEUM OIL.—American water-white, 1s.; American standard white, 1s., in barrels. Russian prime white kerosene is steady and fair business is being done at 5½d. to 7d., naked, ex tank; 7½d. buyers' barrels, filled free; and 10d., barrels filled, ex wharf, London. PETROLEUM JELLIES.—Snow white, 4s.; white B.P., £60; yellow, from £21 to £35; red vet, 40; ruby red, £21; dark stiff green, £13 5s., barrels free, ex wharf, London. Prices are a shade easier for some grades. SPECIAL OIL, for Diesels and motors, 10d. per gallon,

barrels free. Market is unchanged. WHITE OILS.—Special No. 1, £43; No. 1, £37 10s.; No. 1A, £33 10s.; No. 2 half-white, £23 per ton, barrels free, ex wharf, London. LUBRICATING OILS.—There is no change to report in the spot position. Business continues fairly active. Freights now being asked for tank steamers make shipping out of the question for the time being. Pales, £10 15s. to £25; reds, £13 10s. to £25 10s.; dark cylinders, £15 to £29; filtered cylinders, £15 10s. to £32; blacks, £7 10s. to £15, ex wharf, London, less 2½ per cent.; soluble oil, £19 per ton, net. No. 1 Russian oil continues to be active and steady at £13 10s. per ton, ex wharf, London, less 2½ per cent.

Italian Drug and Chemical Markets

Genoa, April 7.

A SHARP reduction in the lire value of the pound sterling brought the rate of exchange from lire 99 to lire 94, while the United States dollar remained about lire 20.25, and the French franc rose to lire 1.25 and more. The arrivals of chemicals from France and Germany were still small owing to the difficult German situation. As regards pharmaceutical chemicals, the high price of these was maintained through a few firms monopolising their distribution to consumers. Through a recent decree the working day for all industries was arranged at eight hours, not more than two hours being allowed as overtime. For some chemicals, especially caustic soda, nitric acid, sodium silicate, sodium sulphate, ammonium nitrate, ammonium sulphate, ammonium chloride, potassium chloride, sodium nitrate, phosphates, etc., the demand was strong, and in some cases the stocks were exhausted. A strange feature of the market was that English caustic soda, 70 to 72 per cent., did not increase in price, whereas American caustic soda, 76-78 did; anhydrous sulphate of soda increased, and the crystallised product fell; carbonate of soda crystals advanced, and anhydrous remained unchanged. During the first nine months of 1922 Italy imported ten tons of sulphuric acid, 588 tons caustic potash, 15,714 tons caustic soda, 1,084 tons ammonia, 771 tons nitric acid, 99 tons arsenious acid, 268 tons ammon. carb., 348 tons potassium carbonate, 225 tons anhydrous sodium carbonate, 188 tons carbonate sodium crystals, 1,847 tons sodium bicarbonate, 458 tons ammon. chlor., 52 tons potassium chloride 813 tons calcium hypochlorite, 388 tons stannic chloride, 204 tons chlorates and perchlorates, 190 tons chromates and bichromates, 1,067 tons potassium nitrate, 167 tons sodium nitrate, 27 tons potash permanganate, 1,294 tons alumina sulphate, 26 tons nickel sulphate, 3,946 tons copper sulphate, 6,997 tons sodium sulphate, 1,611 tons sodium and potassium sulphides, 818 tons zinc sulphide, 301 tons sodium phosphate crystals, 209 tons soda-hydrosulphite and other hydrosulphites, 1,407 tons liquid sodium silicate, 2,146 tons solid ditto, 111 tons impure acetic acid, 290 tons pure 90 per cent. acetic acid, 9 tons 98 per cent. acetic acid, 114 tons pure carbolic acid, 124 tons formic acid, 11 tons crude lactic acid, 100 tons tartrate of lime, 187 tons carbon tetrachloride, 223 tons 40 per cent. formaldehyde, 5 tons nitrobenzene, 551 tons refined naphthalene, 65,482 kilos quinine and other cinchona alkaloids, 28 tons blood albumen, 433 tons liquid glucose, 96 tons cinnamon, 54 tons cloves, 11 tons vanilla, 450 kilos saffron, 27 tons nutmeg, one ton ginger, etc. The following prices (per kilo, except where otherwise stated) were current on the Genoa market:—

	Lire.		Lire.
Acetylsalicylic acid	36 to 40	Morphine hydrochlor.	2,000 to 2,500
Amidopyrin	200 to 225	Opium 10%, Smyrna	120 to 140
Ammonium bromide	10 to 11	Phenacetin	80 to 100
Antipyrine	105 to 115	Potass. brom. cryst.	8 to 9
Benzonaphthol	100 to 110	Potass. io lide	180 to 185
Boric acid, crystals	810 to 830	Potass. sulphoguaic.	80 to 100
and powder	830 to 850	Quinine hydrochlor.	480 to 500
Boric acid, flakes	140 to 160	Quinine sulphate	380 to 400
Caffeine, pure	50 to 60	and bisulphate	65 to 75
Calcium glycerophosph.	48 to 50	Resorcin	12 to 14
Camphor, Japanese	7 to 8	Salicylic acid	50 to 60
Castor oil, medicinal	8 to 10	Salol	14 to 16
Chamoniles	80 to 90	Sodium benzoate	170 to 180
Chloral hydrate	15 to 18	Sodium bicarb. (ton)	9 to 10
Chloroform	17 to 18	Sodium bromide	30 to 35
Citric acid, crystals	2,200 to 2,500	Sodium glycerophosphate	19 to 21
Cocaine hydrochlor.	2,400 to 2,600	Sodium methylarsenate	230 to 250
Cocaine, pure	40 to 50	Sodium salicylate	18 to 20
Creosote, wood	130 to 140	Strychnine nitrate	1,100 to 1,200
Guaiaicol carb.	150 to 180	Tannic acid, leviss	40 to 50.50
Guaiaicol crystals	70 to 80	Tartaric acid, crys.	13 to 15.25
Guaiaicol pure	90 to 100	Tartaric acid, pwd.	13.10 to 13.50
Hexamine	40 to 50	Terpene hydrate	30 to 35
Hydroquinone	218 to 230	Theobromine, pure	185 to 210
Iodine, resublimed	2,500 to 3	Thymol	200 to 225
Linseed meal, pure	9 to 11	Vanillin	340 to 375
Magnesia, calcined	375 to 400	Vaseline	8.50 to 9.50
Menthol	30 to 35	Zinc oxide	5 to 6
Methylsalicylate	12 to 14		
Milk-sugarcystals			



Letters for this section should be written on one side of the paper only. Correspondents may adopt an assumed name for purposes of publication, but must in all cases furnish their real name and address to the Editor.

Situations in the Far East

SIR.—Letters by "Tidapa" (*C. & D.*, January 6, p. 34) and "Hadsum" (*C. & D.*, January 13, p. 69) should not be taken seriously, and perhaps a few notes on life in the Far East by a resident of several years may act as a fillip to young men to try and get abroad and thereby improve their pharmaceutical as well as their general knowledge, for by travel their ideas will broaden. "Tidapa" is evidently of the type who wants to run before he can crawl, and "Hadsum" errs considerably when he says that pre-war conditions prevail as regards salary in engaging new assistants for the Far East; for to my personal knowledge I can vouch that the present rate of salary offered to the young man is far above what prevailed before the war, and men could not exist on the salary that was then given; for I started my first agreement in the East at \$175 per month, and the minimum now is about \$300 to \$325 per month. The average assistant in either the Straits Settlements or F.M.S. is of very little use to his employer for the first year of his agreement, as primarily he must master the native language (Malay), and also accustom himself to the type of business met with; and this is a great thing, for conditions are quite different to those at home. The language is very simple to learn, and if a man can pass the Minor he should find no difficulty in grasping colloquial Malay. I have only met one chemist who could not speak the language, and it was always a wonder to me how he ever passed the Minor. Having grasped the language, the next thing is to study the native customer and native assistant, and remember that they are human beings and not "dirty chows," as some people call them. The type of assistant met with will astonish a newcomer, for they have all been thoroughly taught by Europeans, and at dispensing are a great credit to their employers. Managers are very good to their assistants, and are always willing to let them leave early for tennis, etc.; and after all the hours are splendid—9 a.m. to 5 p.m. (with an hour, 1 to 2 p.m., for tiffin), 9 a.m. to 1 p.m. on Saturday, and Sunday duty alternate (a couple of hours at the most). I know most of the managers in the F.M.S. and S.S. personally, and they are a fine set of men to work for; and if I surmise correctly "Mana Bouleh" was one of the finest and proved a very successful business man, who has now retired after about thirty years in the East. I am with him every time, that given the opportunity I would go back, and never dream of returning to the "Old Country" as a permanent settler, although I am now in business for myself, and thankful to say doing well, and I put my good fortune down to the enormous experience gained in the Far East. There is every inducement for a man to work; he is bound to get on, so long as he remembers that the manager has had more experience and is worthy of a higher salary than the assistant.—Yours faithfully,
C. S. WATSON-WILL.

Dayboro, Queensland.

Assistants' Situations Abroad

SIR.—The question of assistants' situations abroad crops up periodically, and although there are men who, like your correspondent "Out East" (*C. & D.*, March 24, p. 420) fall on their feet, there are others who are not so fortunate. I was interested in Mr. Cofman's letter in the same issue, as his references to accommodation bear out my own experience. When I first went abroad I was assured that a comfortable bedroom and sitting-room were provided. When I arrived I found that these consisted of what had originally been an archway under some back premises, with the front boarded

up and windows let in; wood partitions divided the space into cubicles on one side, and the "sitting-room" was the part used as a passage to get to the sleeping accommodation. The place had no direct daylight; the outlook was to a dirty yard full of empties and rubbish, and the bedding was alive with vermin.

Yours truly,
HOMEROUND BOUND (26/3).

Testing Dispensing

SIR.—Since most official bodies are doing their utmost in trying to twist half the Acts of Parliament on the statute book so as to make them apply to chemists, and medical officers of health think fit to state publicly that the decimal part of a harmless drug, deficient or excess, in a bottle of medicine is of material consequence (while doctors' opinions on dosage vary one hundred per cent.), it appears the time has come for retail chemists to refuse dispensing or touching "dangerous" drugs, and to sacrifice their training and qualification and run a drug-store simply, for now no one is safe. Perhaps the animosity shown by medicos would then cease. Take the case of Mr. Brown at Hampstead on April 11. This was a trap or bogus prescription which was dispensed with meticulous accuracy; and to fine an honest man, with its ruinous consequences of publication, is nothing short of scandalous injustice. And where will it end, unless a more vigorous defence is forthcoming and counsel properly instructed and tutored, instead of the usual "Please, sir, I am not guilty, but if I am I won't do it again" defence? I still contend that dispensing and such nonsense as "selling a prescription" is outside the Sale of Food and Drugs Acts, and a test case, properly conducted, might quash these persecutions.

Heacham.

Yours faithfully,

O. ROUTLY.

SIR.—Mr. Herbert Skinner's letter in your last issue (*C. & D.*, April 21, p. 569) is obviously intended to prejudice the members against the Chemists' Defence Association. I repeat what I said before, that the data in regard to our cases could not be known by Mr. Jenkin, and certainly not by Mr. Skinner. Further, the North London Association has communicated nothing that was not already known to us in regard to defence matters, and Mr. Skinner will realise in time that the defence must fit the facts of the case, which, I fear, he overlooks at present. Regarding the Press "stunt," this originated in North London, and it should have been prevented there if that were possible; but I fancy that Mr. Skinner is referring to the Retail Pharmacists' Union's reply. I have no doubt he would have preferred the R.P.U. to adopt the attitude of "Don't do anything, it will soon blow over." The Press campaign of the R.P.U., in response to the Press "stunt" which started in North London, requires no apology or explanation. Our members have expressed their approval, and will know how to deal with obvious attempts by non-members to create prejudice against the R.P.U. and C.D.A. The C.D.A. policy in regard to its defence and indemnity benefits has always been to treat the information received from a member as private. Further, our members do not want their cases made the subject of a public discussion. There will be no departure from that policy except by request of the members.—Yours faithfully,

G. A. MALLINSON, Secretary.

The Chemists' Defence Association, Ltd.

April 24, 1923.

SIR.—Your fourth article on "Testing Dispensing" is a lucid and compact statement of the difficulties of attaining a 100 per cent. efficiency in analysis, and should provide the basis of a sound defence to any pharmacist who is prosecuted for a deficiency of a decimal part of a grain. All pharmacists, by reason of their training in volumetric analysis, should be able to give a good explanation of so-called errors in quantities, but the publication of these errors in tabular form will give them the details required to carry the war into the enemy's country, and it only needs one pharmacist to demand proof of the accuracy of an analysis in court to stop these prosecutions for percentage errors due to working margins. When a medical officer will gravely declare that a 1 gr. excess or deficiency

of potassium bicarbonate is of serious detriment to a patient, it throws into strong contrast the methods adopted for prescribing, especially for insured persons, who hardly ever receive the same formula twice running. Pot. bicarb. may have been present as 3ij.; next week it is 3ss., the following week 3j.; another person takes mist. pot. brom. for a month or so and then, seeing an assistant or a partner, is given mist. strychn. acid. Another point worthy of notice is that the prosecutions concern such things as pot. bicarb., pot. iodid., etc., in which the difference of a decimal point can make no difference to the customer one way or another; but there are dispensed daily hundreds of prescriptions in which the amounts of such ingredients as strychnine, acetomorph. hyd. and ext. ipecac. liq. seem to create no concern. Perhaps these items are more difficult to estimate.

Yours faithfully,
INDICATOR (23/4).

The Title "Chemist"

SIR,—A discussion on the title of "chemist" can at the present time have no practical result; it is obviously logical that persons engaged in the science and practice of chemistry should be termed "chemists"; in fact, there is no other word in the English language which is effective for describing them. It must be remembered that chemistry, as it exists to-day, is a young science; a century ago there were no chemists, and it was the pharmacist of the day who came most nearly to the practice of chemistry. Pharmacy has developed contemporaneously with chemistry, but along gradually diverging lines, and though it is not entirely divorced from chemistry, this science now enters to but a minor degree, and the description "chemist" as applied to a pharmacist has ceased to be a true one to the logical mind. Nevertheless, it still remains, and cannot at the present time be displaced. The Pharmacy Acts have conferred a legal right on the pharmacist to be a chemist; public opinion holds that he is a chemist, and within the last few years a powerful vested interest has arisen. It is true that the law can be changed, but the difficulties of making such a change in face of public opinion and vested interests are insuperable. In addition, few, if any, chemists have a real grievance. What class of "chemists" desire the change? The academic chemists show no signs, the analysts and consultants are not up in arms, the technical chemists are not clamouring, and it seems that it is really people whose knowledge of skill in chemistry is so small that their recognition as chemists is problematical who are most desirous of getting the—or a—title. Our friends the pharmacists, who have the legal right to be chemists, have never made the least effort to prevent any *bona-fide* student or practitioner of chemistry from calling himself a chemist, so long as he refrained from keeping open shop, and from their side the subject has been regarded with a reasonable spirit of compromise, while the leaders in pharmacy recognise, as do the leaders in chemistry, that the change is bound to come eventually, and the chemist will some day be called a chemist, and the pharmacist a pharmacist; they know the time is not yet ripe. Let us, therefore, continue the compromise, and devote our attention to the education of public opinion.

Yours faithfully,
H. DROOP RICHMOND, F.I.C.

Analytical Laboratory, Island Street, Nottingham.

SIR,—Our friend, "Xrayser II." moralising on Mr. Eldreth Glyn-Jones's address to the West Kent Branch (*J. & D.*, April 21, p. 551) fails to do justice to the lecturer, who certainly made no mistake as to our correct titles. Any blame for inadequate description in the report is entirely due to my poor attempts at condensation.

Yours faithfully,
W. W. PRING,
Bromley, Kent. Secretary, W. K. Branch.

Marking Prescriptions

SIR,—I am sympathetic with, but cannot agree with, "Aladdin" (*C. & D.*, April 21, p. 569). Pioneers in every progressive movement experience difficulties. The early days of the Proprietary Articles Trade Association

must have been extremely trying. Prominent houses, the representatives of which were actually occupying seats on the Council of the Association, refused to have anything whatever to do with it. . . . To-day it is a mighty factor in the pharmaceutical land, and must have put into the pockets of pharmacists tens of thousands of pounds. Dispensing is in very much the same condition that then obtained. It is, or rather was, a profitless department, cut to the bone. The unqualified junior at the counter makes more profit in an hour than the qualified senior in the dispensing department makes in three. Ye gods, what an anomaly! At the present moment there are upwards of three hundred pharmacists pricing their prescriptions, and if you add (as you must) the big companies, there are, in round figures, one thousand establishments doing this. When you bear in mind that the movement receives no help either from the P.A.T.A. or the Society, and merely a cold, sympathetic blessing from the R.P.U., the progress made is really remarkable. Assuming that "Aladdin" had a mixture for which he charged 2s., and his *confrère* charged 1s. 9d. (admittedly it was a scurvy trick, and unworthy of our calling), now what will happen? "Aladdin" says he will cease to mark in future. His opponent will soon tumble to this and assume that "Aladdin" is now charging 1s. 6d. He will then cut his down to 1s. 3d. Where is the end of such folly? Surely, it's a mug's game. The better plan would be to invite the erring one to supper, and afterwards over the pipe and glass see if some mutual arrangement cannot be devised. I fancy the result will surprise "Aladdin." The more I associate with my fellow-pharmacists, the more I like them. Inter-association meetings such as are held in Sussex have proved invaluable. We know each other better, suspicion is disappearing, and a real good feeling of *camaraderie* is developing to our mutual pleasure and profit. Try again, "Aladdin." *Nil desperandum!*

Yours truly,
ARTHUR MILLS.

Eastbourne.

SIR,—Viewing the debate at the last meeting of the Pharmaceutical Council of Ireland on the abolition of the R.D. examination. I am inclined to think that each and all of the members forgot what they were really debating. Considering the fact that a committee had been appointed to deliberate on the question of the abolition and substitution of a modified examination, it looks as if some members of the Council were trying to deny they ever set up such a committee. Considering that the reports of the committee have not met with approval, I venture to offer a few suggestions that might help to clear the air. My proposals are these:—

(1) After the October 1923 examinations no further Registered Druggists' examination to be held.

(2) Druggists over twenty years registered to have a modified examination, to be passed within three years, and pay a fee of £20.

(3) All druggists under twenty years registered to be given three years to become qualified chemists. If there be a failure in any one subject by a candidate, all subjects passed to be put to his credit. . . . This to apply to registered druggists only.

(4) Druggists who do not qualify within the three years to be given a modified examination and two years only to get it. Fee, £20.

(5) Apprentices to druggists to spend two years as an improver with a qualified chemist after their term with druggist terminates. In case of the druggist becoming qualified, to spend only one year with the druggist then qualified, or with another chemist.

I think if correspondents would devote their letters to the subject of abolition, and not enter into spiteful harangues, it would help pharmacy in general a great deal more. . . . I am sure there are many druggists in Ireland who will be qualified before any settlement on the question is arrived at. I hope to be among the latter myself.

Yours, etc.,
J. G. GREANEY, R.D.

Manorhamilton.

Legal Queries

C. W. D. (19/4) asks whether it is legal to incorporate in a label designed for trade purposes a naval or military badge, crest or motto. [It is illegal to use for trade purposes the Red Cross, the British Royal Arms or crests, the British Royal Crowns, or national flags, or the word "Royal" without authority. So far as we are aware there is no other law which prohibits the use of naval or military emblems or devices, although the registration of a trade mark incorporating any such feature would probably be refused unless the applicant could prove that he was authorised to use the emblem or device.]

W. H. S. (10/4) agreed with a firm of estate agents to buy a house at a price of £525, of which £100 was paid as a deposit and the balance was to be paid by weekly instalments of 22s. 6d. He was told that a mortgage for the balance of the purchase money would be arranged with a building society and that his share of the costs would be only about £12. The building society's solicitor now states that not more than £360 can be advanced on the mortgage, and that "W. H. S.'s" costs will be approximately £19. How does "W. H. S." stand? [Unless "W. H. S." has a formal agreement which limits his costs to £12 he must pay the £19, which is a reasonable charge, having regard to the fact that the building society's solicitor is acting both for him and for the society. "W. H. S." has little prospect of raising a mortgage for more than £360, so that he must pay the balance to the vendor upon completion of the purchase, unless there is a written agreement to the contrary.]

A. B. C. (15/4) asks whether table-waters duty is payable when a chemist mixes for a customer a 2d. packet of lemonade powder with water and charges 3d. for the beverage. [The question will have to be considered under one or other of three heads, according to the actual facts: (1) The sale may really have been of the lemonade powder for 2d. to the customer—the chemist then acting as the purchaser's agent for the purpose of dissolving it in the water. In this case there would be no liability to table-waters duty. (2) The mixture may not have been a water of the kind taxable, but a medicinal draught. In such a case also there would be no liability to duty. (3) The sale may have been of the mixture as dissolved, and this may have been a taxable table water where the words of the statute bring it within the scope of the tax. For the purposes of the tax table waters are defined as including "any aerated waters and any beverages sold or kept for sale in bottles, other than"—an exception not material. Here the position is not so clear, because of the loose wording of the statute; but as the beverage is not "sold or kept for sale in a bottle" we are of opinion—though with a little hesitation—that the beverage is not liable to the table-waters duty.]

Garden (14/4) is tenant of a combined house and shop at the rear of which is a garden. Separated from him by another house and a passage-way is a house occupied by A, who is also tenant of the garden behind "Garden's" premises. The same lady owns "Garden's" premises, A's premises and the garden. A's lease of his house and the garden expired some time ago, and he is remaining in possession by virtue of the Increase of Rent Act, 1920. If "Garden" buys his premises and the garden will he be entitled to possession of the latter? [We assume that the house and garden were let to A together, in which case the protection from eviction which he now enjoys under the Act applies to the garden, unless its rateable value let separately would be more than one-quarter of the rateable value of the house. New legislation to replace the existing Act will be introduced this summer, and it remains to be seen to what extent A will be protected after that date. If the garden was let to A separately from his house, or if the garden let separately would be rated at more than one-quarter of the rateable value of the house, A is not entitled to retain possession of it now that his lease has expired, unless a yearly tenancy has been created by the acceptance of rent or otherwise. "Garden" should consult a solicitor before buying the garden.]

Miscellaneous Inquiries

When samples are sent particulars should be supplied to us as to their origin, what they are, what they are used for and how. We do not undertake to analyse and report upon proprietary articles nor to publish supposed formulas for them.

J. A. S. (9/4).—*C. & D.* RETAIL PRICE LIST.—The price of 4d. per oz. approximately for spirit which you give shows that you buy at a cheaper rate than the figure given in the *C. & D.* Retail Price List. The price quoted as cost, after rebate, may now safely be reduced, owing to the revenue allowing rebate up to quantities of one-hundredth of a gallon. So long as the authorities only allowed one-tenth it is obvious that provision had been made to cover what may have been a repeated loss. This was, however, only one factor which made it necessary to fix the approximate cost at a high figure. The overhead charges in relation to alcohol are abnormal owing to the prepaid duty, and the average need had to be, and is, justly covered in the figure given.

G. W. (24/4).—(1) SILVER IS RECOVERED from photographic fixing baths by adding potassium sulphide (liver of sulphur), which precipitates the silver as sulphide. The precipitate is separated, dried and fused with dried sodium carbonate in a crucible. The residue is converted into silver nitrate by means of nitric acid. (2) BOOR POLISH:—

Carnauba wax	...	...	4 parts.
Ceresin	...	...	40 parts.
Black Montana wax	...	...	4 parts.
Wool fat	...	...	2 parts.
Turpentine oil	...	...	120 parts.
Pine oil	...	...	40 parts.
Lampblack, finest	...	...	5 parts.

Mix.

C. S. H. (24/4).—PILE OINTMENT.—The following is the formula for which you inquire:—

Pulv. ac. boric.	...	...	1lb. 6oz.
Pulv. gallæ	...	...	7 lb.
Pulv. opii	...	...	1 lb. 6½ oz.
Ext. hamamelis liq.	...	...	60 oz.
Ol. origani	...	...	7½ oz.
Lanolin	...	...	17½ lb.
Paraf. moll.	...	...	27½ lb.
Paraf. dur.	...	...	2 lb.

Misce.

Retrospect of Fifty Years Ago

Reprinted from
"The Chemist and Druggist," April 15, 1873.

New Basis for Suppositories

Mr. Martindale has found the oil of theobroma to possess certain disadvantages as a basis for suppositories and pessaries. It solidifies very slowly, especially in the summer; it is somewhat difficult to remove from the mould and, being a fatty substance, it impedes the absorption of the medicament the suppositories are impregnated with. He also objects to soap, as suggested by Dr. Redwood, on the ground that it is difficult to form suppositories containing it into proper shape, and also because soap often contains some free alkali, and always some chloride of sodium. He has found that by using oleic and stearic acids in equal proportions he gets a basis with the following properties:—

1. This mixture has a very low fusing point and readily melts at the temperature of the body.
2. The suppositories leave the mould without any difficulty.
3. This basis has the advantage besides of being a solvent of such alkaloids as pure morphia and atropia, and of being itself readily absorbed by the epidermis and mucous membrane, at least so far as the oleic acid is concerned.
4. On account of the partial crystallisation of some of the stearic acid the suppositories are firm and can be placed in their position without difficulty, not being elastic, brittle or yielding in any way.
5. The proportions of stearic and oleic acids can be varied to suit the temperature of summer or winter, and also the other ingredients prescribed with them.

Professional Pride and Profits



YOUR professional relationship to your customers carries with it an implied guarantee that whatever you sell will give them satisfaction. And, commercially, every article should satisfy *you* as a profit-maker. You gratify both professional pride and business sense with every sale of

ENO'S "FRUIT SALT"

YOUR profit on a gross of ENO (Household Size) is £5 12s., equal to 9½d. profit on each bottle. The Handy Size "ENO" shows a return of from 4¾d. to 5½d. per bottle according to the quantity bought.

LARGE advertisements are appearing regularly in the leading newspapers, weeklies, illustrated papers and magazines. The medical and nursing professions are being systematically reminded of ENO.

This Eno advertising is bound to increase your sales. Get the full benefit from it by constantly showing in your window and on the counter the new

**ENO GIANT DUMMY,
GRAPES-AND-PACKAGE "CUT-OUT," etc.**

For particulars of some tempting 14-day Window Display offers of Eno's "Fruit Salt," write the Sales Manager,

J.C. ENO Ltd., Lever House, Victoria Embankment, E.C.4

The words "ENO"
and "Fruit Salt" are our
Registered Trade Marks,

ESSENCES & SYNTHETICS LTD.



Directors : D. MISELL. A. A. DENT.

4 Carlisle Avenue, Fenchurch Street, LONDON, E.C.3.
Works : HULL.

Manufacturers of Synthetics and Importers of Essential Oils
and Pharmaceutical Products.

Telephone No. : Avenue 1419.

Telegraphic Address : "Essynthet, Ald, London."

We are the Sole Selling Agents for the Co-operative Society
of the Proprietors of Flower Groves, Vallauris and Pegomas
(French Riviera).

"HORTUS"

Concrete or Absolute.

JASMIN, ROSE,

RESEDA,

CASSIE,

Etc., Etc.



"NEROLIUM"

Orange Absolute, Concrete Orange,
Neroli Pure.

All the above products are
distilled on the Grower's
own estate.

They are sold under
guarantee of purity.

Samples can be had
on application.



BENZYL BUTYRATE.—Com-
bined with Benzyl Acetate
produces a fine Jasmin odour.

CITRAL 100%.

GERANYL BUTYRATE.—Useful for its
sweet odour in combination with
Rose Compositions.

GERANIOL EXTRACT FROM JAVA.

GERANIOL FROM PALMAROSA.—Its supe-
riority over that made from other Essential
Oils is admitted. Its sweet Rose odour
makes it suitable for Rose Compounds.

GERANIOL ACETATE. GERANIOL FORMATE

GERANIOL VALERIANATE.

HYDROXYCITRONELLAL.—Pure (Lily of the Valley base).

IONONE ALPHA. IONONE BETA. IONONE 100%.

IONONE FOR SOAPS.

METHYL IONONE.

VERT DE VIOLETTE.—Natural product of Violet leaves—
"The green of the Violet." Gives to Violet perfumes
the suggestion of "Greenish" colour odours so appreciated in
a bunch of Violets.

LINALYL ACETATE 92%.—Ester from Bois de Rose. A colourless
oil with the characteristic odour of Bergamot. Specially adapt-
able to Lily of the Valley and Jasmin odours.

METHYL SALICYLATE.

PHENYL ETHYL ALCOHOL.

PHENYL ETHYL BUTYRATE.—Combines with Phenyl Ethyl Alcohol,
producing in Rose odours the sweet smell of Rose leaves.

PHENYL ETHYL FORMATE.

PARACRESOL ACETATE.—For Narcissus base.

RHODINOL OTTO.—A New Production.—This has been recently perfected and is
one of the most useful products offered to perfumers. It is a true reproduction
of the active perfuming principle of the Rose.

The dominant quality of RHODINOL OTTO is its Rosy Sweetness; the tenacity
of its original sweetness is apparent even after drying out on the test paper. This
stamps its purity and we guarantee its entire freedom from blending. It can be
used in all types of odours of which Rose is the base, the results being comparable
only with those obtained by using the natural product.

RHODINOL NO. 1.

RHODINOL ACETATE.

RHODINOL FORMATE.

RHODINOL BUTYRATE.

RHODINOL VALERIANATE.

LINALOOL from Bois de Rose.

TERPENYL ACETATE.

TERPENYL FORMATE.

Samples for testing purposes will be sent on application.

JOHNSON & SONS

Manufacturing Chemists

LTD.

23 CROSS STREET, FINSBURY, E.C.2.

Phone: CLERKENWELL 1660 (3 lines).

Wires: "CAUSTIC, LONDON."

offer for immediate delivery:—

ASPIRIN : HEXAMINE

ACID TANNIC : BROMIDES
(TECH. & LEVISS)

SALICYLATES

POTASS. PERMANG.

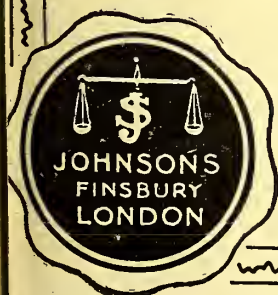
and

CHEMICALS FOR ALL

PHARMACEUTICAL,

TECHNICAL AND

PHOTOGRAPHIC PURPOSES



ALKALOIDS

Fine Chemicals Opium Derivatives

SALICIN
CAPSICIN
CANTHARIDIN
PODOPHYLLIN
HYOSCYAMINE
HOMATROPINE
JALAP RESIN
IRIDIN
ALOID
GINGERINE
LITHIA SALTS
SCAMMONY RESIN

MORPHINE
CODEINE
STRYCHNINE
CAFFEINE
EMETINE
THEOBROMINE
CHLOROFORM

OPIUM
TELA VESICATORIA
VERATRINE
ATROPINE
CHRYSAROBIN
DIAMORPHINE
EMETINE
BISMUTH IODID.
EMP. CANTH. LIQ.
ETHYL MORPHINE
HYDROCHLOR.
ERGOTIN

T. & H. SMITH LTD

BLANDFIELD WORKS: 25 CHRISTOPHER STREET: 32 & 34 VIRGINIA STREET
EDINBURGH : LONDON, E.C.2. : GLASGOW.



BAISS BROTHERS & Co. Ltd.

Established 1833.

GRANGE WORKS, LONDON, S.E.1.

*Wholesale and Export Druggists
and Manufacturing Chemists.*

Telephone : Hob. 4352 (3 lines). Telegrams : "Ipecac, London."

Sole Proprietors of

COD LIVER OIL EMULSION—
Gold Medal. (BAISS)

"KRYSYL" (BAISS)—Unequalled as
a cheap and efficient disinfectant.

"KRY SOL" (BAISS)—The last word
in Lysol improvement.

"PINESYL" (BAISS)—A perfect disin-
fectant with an agreeable pine odour.

DELIVERIES BY OWN MOTOR SERVICE IN THE
HOME COUNTIES, INCLUDING COAST TOWNS.

Enquiries Invited.

J. C. ARNFIELD & SONS Ltd.

ESTABD. 1786.

SPECIALISTS IN

Drugs & Galenicals

IN BULK.

FINEST QUALITY AT
COMPETITIVE PRICES.

RASPBERRY VINEGAR

GENUINE EX FRUIT.

WE CAN OFFER TO SPECIAL ADVAN-
TAGE AND INVITE ENQUIRIES
FROM LARGE BUYERS.

Telephone :
601
Private Branch
Exchange.

Wholesale Druggists,
STOCKPORT.

Telegrams :
"Chemicals,
Stockport."

THE GOODWILL
of
The Business recently owned by
CHEMICALS & BY-PRODUCTS LTD.
of
WATFORD

has been acquired by the under-
mentioned Company and your
orders will receive prompt and
careful attention.

Enquiries are Invited for

ALL KINDS OF TABLETS
DRUGS and PHARMACEUTICAL
PREPARATIONS
D 50 and PHOTOGRAPHIC CHEMICALS
AND
INDICATORS and RE-AGENTS

THE THAMES CHEMICAL CO., LTD.
with which is associated The Cooper Laboratory
WATFORD, England

TWO ANÆSTHETICS

Each with a reputation of nearly
three - quarters of a century.

UNSURPASSED in anæsthetic
efficiency and safety in use by other
products made from whatever source.



J. F. MACFARLAN & CO.

9 & 11 Moor Lane, LONDON, E.C.2
and Abbeyhill Chemical Works, Edinburgh.

BURKETT, SHARP & CO., LTD.
DRUGS 21, MINCING LANE, *CHEMICALS*
LONDON, E.C.3

EPSOM SALTS, Pure B.P. Needle and Medium Crystals
and Exsiccated

GLAUBER SALTS, Pure B.P. Pea Crystals

BARIUM CHLORIDE Harris, Hart & Co. Ltd., Chemical Manufacturers,
17 Cooper St., Manchester.

CHEMICALS, OILS

AND GENERAL PRODUCE

Aspirin

Eucalyptus Oil

Olive Oil

Acetic Acid

Tartaric Acid

Citric Acid

Ammon. Ichthyosulph

Cream of Tartar

Salicylic Acid

'PHONES:
HOP 333-4

F. W. POWELL

85 BLACKFRIARS ROAD, S.E.1.

AGENT: CHRISTIAN J. MOHN A/S, COD-LIVER-OIL

'GRAMS
"ANISEED, FRIARS"

BRITISH ORGANO-THERAPEUTICAL PREPARATIONS DUNCAN

A Complete Series
of the
Products of the
DUCTLESS GLANDS
Etc.

THYROID
PITUITARY
SUPRARENAL
OVARIAN, etc.

All prepared from the material collected from freshly slaughtered animals in the Home Markets. Each Product is prepared with every precaution to ensure Aseptic Conditions.

By prescribing and using only those products known as "DUNCAN" the physician ensures the exclusion of all Foreign Preparations.

MANUFACTURED BY

DUNCAN, FLOCKHART & CO., Edinburgh and London.
LONDON - - - 155-157 FARRINGTON ROAD, E.C.

TUCKER & CROSS

15 ST. MARY AXE,
LONDON, E.C.3.

Telephone: AVENUE 2569.
Telegrams: "GLUCOSE, LONDON."

NOW IS THE TIME TO REPLENISH YOUR STOCKS.

WEST INDIAN TAMARINDS

GUARANTEED FINEST QUALITY 1923 CROP.

BARRELS ABOUT 2½ CWT. NETT WEIGHT.

SEND US YOUR ENQUIRIES.

**ACID
SALICYLIC**

Warrington Chemical & Drug Co., Ltd.

Paddington, nr. Warrington.

Telegrams: "Salicin, Warrington."

PARA AMIDO PHENOL

**SODA
SALICYLATE**

**TARTARIC ACID
CREAM OF TARTAR
CITRIC ACID**

J. KHAMBATA & CO.

3 & 4 Ct. Winchester St.,
LONDON, E.C.2.



Telephone: London Wall 61.

Telegrams:

Foreign—"Jehangir London."

Inland—"Jehangir, Phone, London."

ALKALOIDS "SANDOZ"

ATROPINE SULPHATE.

ARECOLINE HYDROBROMIDE.

HYOSCYAMINE PURE.

HYOSCYAMINE HYDROBROMIDE.

EMETINE SALTS.

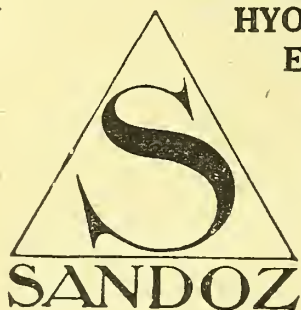
PILOCARPINE HYDROCHLORIDE.

PILOCARPINE NITRATE.

YOHIMBINE HYDROCHLORIDE.

YOHIMBINE TABLETS.

ALGOPANE, the total Alkaloids
of Opium (50% Morphia).



SANDOZ CHEMICAL WORKS, BASLE, Switzerland.

Sole Consignees in Great Britain:

The SANDOZ CHEMICAL CO., Ltd., Canal Road, Bradford.

London Representatives:

W. SUTER & CO., 12 Edmund Place, E.C.

Trade Mark

Roche

BRAND

ALKALOIDS
CHEMICALS

SANTONIN
B.P.
CRYSTALS

In Original Russian Parcels
For Immediate Delivery.



THE HOFFMANN-LA ROCHE CHEMICAL WORKS, LTD.
7 & 8 Idol Lane, LONDON, E.C.3.

CASSIA FISTULA PODS,
PODOPHYLLIN ROOTS
and other
INDIAN CRUDE DRUGS.

S. N. DE., M.Sc. (Botany), Post Box 7851, CALCUTTA

BROMURAL "Knoll,"
The Famous Soporific and Nerve Sedative,

is again obtainable in Tubes of 10 tablets
(in addition to tubes of 20 tablets).

Apply to Sole Importer,

W. BREDT, 10 Fenchurch Avenue, London, E.C.3

LIQUORICE ROOT

Camomiles, Liquorice Sticks, Orris Root,
Rhubarb, Rhapontica, Juniper Berries, Bay
Leaves, Henna Leaves, Lavender Flowers.

Horace Battin & Co., Ltd.

PORT OF LONDON BUILDING,

Seething Lane :: London, E.C.3

Telephone:
Minorities 1620.

Telegrams:
"Hobatco, Phone, London."

E. BRAMWELL & SON LTD.

NAVIGATION CHEMICAL WORKS.

TELEPHONE:
ST. HELENS 451**ST. HELENS,**TELEGRAMS:
BRAMWELL, ST. HELENS.**LANCASHIRE.****MANUFACTURERS OF:
HYPOSULPHITE OF SODA**"PEA" CRYSTALS AND COMMERCIAL QUALITIES
GRANULATED AND DESICCATED.**EPSOM SALTS**PURIFIED B.P. MEDIUM AND COMMERCIAL QUALITIES
GROUND, DESICCATED, AND COLOURED.**SULPHITE OF SODA**PURIFIED AND COMMERCIAL QUALITIES
GRANULATED AND DESICCATED.**GLAUBER SALTS**SPECIAL AND PURIFIED QUALITIES B.P.
COMMERCIAL AND DESICCATED.ALUM (GROUND)
CARBONATE OF SODA
CRYSTALS (PHOTODUPLICATION)PRECIPITATED CHALK
SULPHITE OF LIME
BICARBONATE OF SODAPACKED IN CASES, 28-LBS. AND 56-LBS.
KEGS, 1-CWT. NETT. BAGS, ½-CWT., 1-CWT., AND 2-CWT.
BARRELS, 2-CWT. TO 3-CWT. CASKS, 5-CWT. TO 8-CWT.**ENQUIRIES SOLICITED.****SALICYLIC
ACID, B.P.
ASPIRIN, B.P.**British Manufacture.
Finest Quality.
Lowest Price.

Any quantity, spot or forward.

Write, wire, or phone:

PIERSON, MORRELL & CO. Ltd.

The Original British Aspirin Makers,

100 QUEEN'S ROAD, BARNET.

Telephone: Barnet 723. Telegrams: Pierson Morrell, Barnet.

GRAND PRIX, BRUSSELS, 1910
GRAND PRIX, LONDON, 1909
GOLD MEDAL, ST. LOUIS, 1904*Estab. 1844.***Thomas Tyrer & Co.**
LIMITED.*Thomas Tucker, Manager.***Stratford, London, ENG.**

Tel. Nos.: MARYLAND 2510 and 2511.

*Our Reputation
Your Guarantee***"Sterling"**

BRAND

FINE CHEMICALS

Pharmaceutical and Technical.

**ETHERS, HYPOPHOSPHITES
BISMUTHS, MERCURIALS,
GRANULAR AND SCALE
PREPARATIONS.**Acetone, Acids, Amyl-Acetate, Anti-
mony Salts, Barium Salts, Bromides,
Citrates, Collodions, Calcium Salts,
Copper Salts, Driers, Iodides, Lead
Salts, Manganese Salts, Nickel Salts,
Phosphides, Phosphates, Potassium
Salts, Pyroxylin, Siccatives, Sodium
Salts, Sulphur, Thorium Salts, Tung-
sten Salts, Zinc Salts.*Rare Gases—**Argon, Helium, Neon, Krypton.*



Hubbuck's Pure Oxide of Zinc

is made by sublimation, and is
warranted to contain upwards of
99.5 PER CENT.

of pure oxide; in fact the
impurities are not traceable.

Thos. Hubbuck & Son, Ltd.

ESTABLISHED 1765

24 Lime Street, London, E.C.3.

MANUFACTURERS OF WHITE LEAD, WHITE
ZINC, PAINT, OILS, COLOURS, VARNISHES, &c.

Australian Office : 34 Queen St., Melbourne.

Sold by the following Wholesale Druggists
in Boxes of 7 lb. and 14 lb. stamped by
the Manufacturers; also in 1-lb. Boxes and
1-lb. Glass Bottles

Allen & Hanburys (Lim.)
Ayrton, Saunders & Co.
(Lim.)
Baiss Bros. & Company
Bell, Jno., & Co. (Lim.)
Bleasdale (Lim.) (Lim.)
Boots' Pure Drug Co.
British Drug Houses (Lim.)
Burgoyne, Burbridge & Co.
Butler & Crispe (Lim.)
Clay, Dod & Co.
Cockburn & Co. (Lim.)
Corbyn, Stacey & Co.
Dakin Brothers (Lim.)
Duncan, Flockhart & Co.
Evans, Gadd & Co.
Evans Sons Lescher &
Webb (Lim.)
Ferris & Co.
Gale & Co.
Glasgow New Apothecaries
Co.
Goodall, Backhouse & Co.
Harker, Stagg & Morgan
(Lim.)
Harkness, Beaumont &
Co.
Hatrik, W. & R., & Co.
Hirst, Brooke & Hirst.

Hodgkinson, Prestons &
King.
Hodgkinsons, Clarke &
Ward
Horner & Sons
Huskisson, H. O., & Co.
Inman's Stores (of Edin-
boro')
Lofthouse & Salmer
(Lim.)
Oldfield, Pattinson & Co.
Pinkerton, Gibson & Co.
Raimes, Clark & Co.
Raimes & Co.
Rankin & Borland
Silversides, R. B. G.
Smith, T. & H. (Lim.)
Southall Bros. & Barclay
Sumner, R., & Co.
Taylor, James
Thompson, John (Lim.)
Wilkinson & Simpson
(Lim.)
Willows, Francis, Butler
& Thompson (Lim.)
Woolley, Jas., Sons &
Co. (Lim.)
Wright, Layman & Um-
Wyleys (Lim.) (ney (Lim.))

Barry, E. J., New York
Finlay, Dicks & Co., New
Orleans
Chas. L. Huisking, Inc.,
5, Platt Street, N. York
Lehn & Fink, Inc., N. York
McKesson & Robbins,
Inc., New York

Muth Brothers & Co.,
Baltimore
Roller & Shoemaker,
Philadelphia
Schiefelin & Co., Inc.,
New York
Shoemaker & Busch,
Philadelphia



We can offer ex-stock London.

**CALCIUM LACTATE
SODIUM BENZOATE
PHENOLPHTHALEIN
HEXAMINE
ACID ISO-VALERIANIC
BUTYL CHLORAL
HYDRATE
ESERINES**

and all fine Chemicals and Alkaloids

Quotations also f.o.b. Continental ports.

The Old Strand Chemical & Trading Co. Ltd.

Managing Director—HERBERT A. BERENS, B.A. (Cantab.) F.C.S.

Audrey House, Ely Place, LONDON, E.C.1

Works at - MAISSE, SEINE-ET-OISE, FRANCE

**SAPONINE POWDER (Soluble)
CREAM OF TARTAR 99/100% B.Ph.
TARTARIC & CITRIC ACIDS B.P.
Finest Essential Oil Lemon**

(NEW CROP).

We have large quantities for sale and
are quoting particularly favourable prices.

C. W. FIELD, LTD.

92 WOOD STREET - - LIVERPOOL

**THE BEST HOUSE FOR
ASPIRIN
CASCARA
AND ALL TABLETS IN BULK.**

Write for samples and prices before buying.
Superior machinery and scientific control.

R. GIBBINS & CO.

1 BIRKBECK ROAD, KINGSLAND, LONDON, E.8.

CHAS. PAGE & CO., LTD.

37/39 KING WILLIAM ST., LONDON, E.C.4.

422/425 Royal Exchange, Manchester. 31 St. Vincent Place, Glasgow.

Offer at first hand

ACID OXALIC

ACID TANNIC

BROMIDES

HEXAMINE

NAPHTHALINE BALLS

SODA HYPOSULPH.

SODA SULPHITE, &c., &c.

WHOLESALE QUANTITIES ONLY.

TELEPHONES { HEAD OFFICE: CITY 5408 (3 lines).
MANCHESTER: CENTRAL 1882 (2 lines).
GLASGOW: CENTRAL 452.

TELEGRAMS { "PAGANINI LONDON."
"PAGANINI MANCHESTER."
"PAGANINI GLASGOW."

BLOOD-FORMING & ANAEMIA CAPSULES

(Haemoglobin, Bone Marrow & Iron).

Attractively packed for Retail.

10/6 per doz. boxes of 36 Capsules with showcards.

One dozen boxes to any Chemist on sale or return.

JOHN W. MAWSON & CO., LTD.

Capsule Makers,

WEST NORWOOD, S.E.27.

'Phone: Streatham 718.

Pyrogallic Acid Gallic Acid

Manufactured by **J. L. ROSE**

At ABBEY ROAD, BARKING, LONDON, E.

Wholesale and Export Only.

HENRY'S CALCINED MAGNESIA

Continues to be prepared with scrupulous care, in the greatest chemical purity, by

Messrs. **THOMAS & WILLIAM HENRY**, 11, East Street, St. Peter's, Manchester.

And is sold in Bottles, authenticated by a stamp bearing their name

Trade Mark, "Henry's Calcined Magnesia."

New York: Messrs. SCHIEFFELIN & CO., William Street.

PRICE 2s 9d

Paris: Messrs. ROBERTS & CO., 5, Rue de la Paix.

HOWARD LLOYD & CO., LTD.

Pill and Tablet Specialists, LEICESTER

WILL BE GLAD TO SEND YOU A NEW AND
REVISED PRICE LIST UPON APPLICATION.

SPECIAL QUOTATIONS BY RETURN

McK & R = Quality

A trademark that is recognized in all parts of the world

McK & R—Gelatine Coated—PILLS

McK & R PILLS—Keep in any Climate

McK & R PILLS—Are soluble

McK & R PILLS—Are easy to swallow

McK & R PILLS—Are dependable

QUININE—Sulphate and Bisulphate

ANTI-MALARIAL

—McK & R Formula

CARTHARTIC COMPOUND

—Improved

GUAIAQUIN—(Registered)

and others

Catalogue describing our new preparations, such as:

McK & R CHILL TONIC

McK & R LAXATIVE SALINE

McK & R CHILL TABLETS

and other McK & R HEALTH HELPS, free on request

McKESSON & ROBBINS, INC.

SINCE 1833

Manufacturing Chemists, NEW YORK, U.S.A.

SULPHUR TABLETS.

Orange—Plain—Lime

7 lbs.	28 lbs.	56 lbs.	112 lbs.
1/4	1/2	1/1	1/-

400 Cartons with each cwt. free, and in proportion.
NO BETTER TABLET ON THE MARKET.

Send your orders NOW.

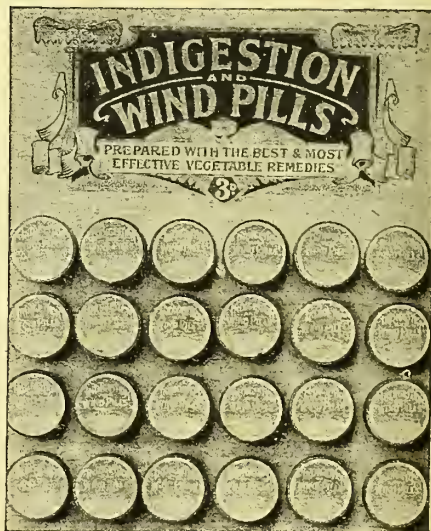
CASTLE HUSKISSON, LTD.

Manufacturing Chemists,

Swinton Works, Moon St., ISLINGTON, N.1

3^d. series PILLS

Handsomely Carded. A Splendid Seller.



Per 15/- gross boxes.

LARGE SHOWCARDS NOW SUPPLIED.

MATTHEWS & WILSON, Ltd.

HOP 5497. 6/8, Cole St., Borough, S.E.1

Your Physicians Will Prescribe Esterol—Stearns

You know the popularity of Benzyl Medication. Your doctors recognize the value of Benzyl Benzoate, but they also realize its disadvantages—and therefore appreciate the many advantages of Esterol—Stearns (Benzyl Succinate, Medicinal.)



Esterol—Stearns is a tasteless and odorless powder instead of a nauseating liquid. It contains 42% more Benzyl radicle than Benzyl Benzoate and is non-toxic, non-narcotic and non habit-forming.

Your doctor will acknowledge that Esterol is one of the biggest things in Materia Medica today. Your physicians are being detailed and circularized.

Esterol—Stearns is indicated in excessive peristalsis of the intestines

as in Diarrhea and Dysentery, Mucous colitis, Spastic constipation, Dysmenorrhea, Biliary colic, Labor pains, Contractions of seminal vesicles, Ureteral colic, Circulatory conditions, Angina pectoris and hypertension, Bronchial spasm, Asthma (certain forms), Hiccough, Irritating cough.

Esterol—Stearns is supplied in bottles of fifty tablets, each tablet containing five grains Esterol—Stearns (Benzyl Succinate, Medicinal). Prepare to meet the demand by placing "Esterol—Stearns" on your want book now.

Manufactured solely by

Frederick Stearns & Company

Detroit, Michigan, U. S. A.

Branch Laboratories: Windsor, Ontario, Canada, and Sydney, Australia.
Branch Offices: New York, San Francisco, Calcutta, and Cape Town.



Telephone: MINORIES 2652.

Codes:
Bentley's: A B C, 5th Ed.Tel. Add.: "CELAITCH, BILGATE, LONDON."
Cable Add.: "CELAITCH, LONDON."

CHARLES L. HUISKING, LTD.

74 Great Tower Street, LONDON, E.C. 3.

**PHARMACEUTICAL CHEMICALS, DRUGS,
ROOTS, HERBS, LEAVES, etc.***Representing in England the following—*

"ORANJE," LTD., Amsterdam

A. OULMANN & CO., Leghorn

ALF. GAUSSEN, Nimes, France

PABLO GROSSMAN, Mexico City

A. E. BEEBE & SONS, Niles, Michigan

J. L. P. SPOHR, Lugano, Switzerland

AGENTS FOR AMERICAN FIRMS.

- Essential Oils, Synthetics, etc.

- Olive Oil, Orris Root, Juniper Berries,
Italian Produce

- Roots, Herbs and Leaves

- Sarsae, Jalap, Mexican Produce

- Wayne County Peppermint Oil, Natural
and Redistilled

- Extract of Male Fern Root

*Let us have your Enquiries.*American
Correspondents

—CHAS. L. HUISKING, Inc., 5 Platt Street,

Cable Add.: "CELAITCH NEW YORK."
Codes: A B C, 5th Ed.; Bentley's Improved.**NEW YORK CITY, U.S.A.****FAX INDIGESTION
CURE.**Liberal Terms to
Wholesalers
and Retailers.

FAX, LTD., Manufacturing Chemists, SALISBURY

**ALL CHEMISTS
SHOULD STOCK****ABDINE***THE GOLD MEDAL HEALTH DRINK,
Quick Seller. Big Profits. Over 40 years' Reputation.
"Abdine" is the most popular Health Drink, superior to all
Mineral Waters. The Original and only genuine Fruit Drink.
Reduced Price List can be had on application.***DUNCAN McGLASHAN, LTD, ABDINE WORKS, WESTFIELD RD., EDINBURGH**

The House for French Pharmaceutical Preparations

Telegrams—
"Ampsalvas London."**THE ANGLO-FRENCH DRUG CO., Ltd.**Telephone—
Museum 4029.**238a Gray's Inn Road, LONDON, W.C. 1.**

Branches—PARIS, BRUSSELS, NEW YORK, MONTREAL, CAPE TOWN, SYDNEY, BOMBAY, CALCUTTA.

QUININEQUINIDINE
CINCHONINE
CINCHONIDINE

and

SALTS

Sugar-coated Quinine Tablets and Pills.

**BANDOENG
JAVA****BANDOENG QUININE FACTORIES**

AMSTERDAM

De Wittenkade 48-50.

Telegrams: "Kininefabriek Bandoeng." Samples, prices and particulars on application. Telegrams: "Semadmy Amsterdam."

Apply to - - - **R. W. GREEFF & CO., Ltd., Thames House, Queen Street Place, London, E.C.4.**

Telegrams: "Greeff, Cannon, London."



Have you considered the possibilities of the American market for your product?

THERE is a splendid opportunity awaiting British manufacturers of medicinal or pharmaceutical preparations, to sell their products in the United States.

Many articles being sold in England are equally suitable for the American market, and if introduced thru the medium of a well-planned advertising campaign could be profitably sold.

We are recognized by the drug trade of the U. S. as the means whereby the best of British and French medicinal preparations are brought to them, and our facilities plus a thorough knowledge and experience in merchandising are at the service of any British manufacturer who is seriously considering this market.

Correspondence cordially invited

London Representatives:
H. B. SLEEMAN & CO. Ltd.
84 Leadenhall St., E.C.3.

E. FOUGERA & COMPANY, Inc.
Est. 1849
90-92 Beekman Street New York City

[2]

RUSSIAN CRUDE DRUGS

LYCOPodium

WORMSEED

SOAP ROOT

HERBA ADONIS VERNALIS

(Natural and Cut)

CANTHARIDES (Whole Fly and Powdered)

CALAMUS ROOT (Peeled and Unpeeled)

LIME TREE FLOWERS

FRANGULAE BARK

ISINGLASS, BELUGA, SALIANSKY & SAMOVY.

ARCOS LIMITED

Soviet House, 49 Moorgate, London, E.C.3

Telephone Nos.: London Wall 6626/35
Private Branch Exchange.

Telegrams: "ARCOSARCOS,
AVE. LONDON."

Make HEADACHES help to fill your till—sell



CONSIDER "Daisy" from a thoroughly business-like point of view, the point of view you have *got* to have to be successful to-day—and you will see how wise you would be to push "Daisy" *hard*.

For "Daisy" yields you from 50 to 100 per cent. of clear profit; it is easy and quick to handle; the market is big and includes nearly everybody; and "Daisy" is advertised so heavily and so well that your every "headache" customer will accept it gladly.

Every day "Daisy" gets more and more users; more and more people learn how safe and how quickly effective it is. They are passing your window every hour. Let them see that *you* have "Daisy" and into your store they'll come.

Quick, easy, big-profit sales are what every chemist wants. "Daisy" offers them to you to-day. Will you take them?

TERMS

1/- packets, each containing 8 powders—Minimum Retail price 1/-. Sample Powder 2d. For not less than 1 doz. boxes 9/9 per doz. For not less than 3 doz. boxes 9/2 per doz. 2/3 packets, each containing 20 powders—Minimum Retail price 2/3. For not less than 1 doz. boxes 21/6 per doz. For not less than 3 doz. boxes 20/6 per doz. Mixed orders for 1/-, 2/3, 6/- size and for "Daisy" Tablets on best terms. Discount 7½ per cent. for cash. Carriage Paid to destination. From all Wholesalers or direct.

DAISY, LTD. - HORSFORTH - LEEDS

2,500

Prescription Envelopes

FREE

in exchange for a

Window Display

For full particulars write now to—

GENATOSAN LTD., LOUGHBOROUGH

A TOP HOLE SELLER

MAY BE OBTAINED FROM WHOLESALE HOUSES OR DIRECT FROM—

BEWELLS' Ltd.,MANUFACTURING
CHEMISTS,**19-21 Pittfield St., N.1****PYORRHOCIDE
TOOTH POWDER****REDUCTION IN PRICE
APRIL 3rd**Price to the Public **5/-**Trade price **48/-** per dozen.*Advertising will shortly begin.*

Showcards on application.

American Drug Supply Co. Ltd.40-42 Lexington Street,
London, W.1.

DUTCH

**Sugar
of Milk.**

"THE BEST"

**HOLLANDSCHE
MELKSUIKERFABRIEK**

Amsterdam.

Clarke's Blood Mixture

Special Terms for Window Show

Any Distributor ordering One Gross 3/- size Blood Mixture—or its equivalent in value—is offered an extra half-dozen Blood Mixture for 14 days' Window Show.

DUMMIES AND SHOWCARDS ENCLOSED WITH EACH ORDER.

MINIMUM PRICE FACE VALUE

FREE CASES

33½ per cent. on cost to our Distributors.

Carriage Paid on £100 orders.

Orders despatched in strict rotation.

The Lincoln & Midland Counties Drug Co. Ltd.
PARK STREET, LINCOLN.

Minimum Retail Price—FACE VALUE.



W. T. Owbridge, Ltd., The Laboratory, Hull.



TWO SORTS NOW.
HUMAN AND VETERINARY.

MINIMUM PROFIT, 25 per cent:

Extra discounts on orders for £2 and over. Carriage paid on ALL orders.

*Our "best terms" quotation will interest you.
We invite you to write for it TO-DAY.*

THE DENVER CHEMICAL MANUFACTURING CO.
St. Ann's Road, London, E.3.

TESTOGAN

FOR MEN.

THELYGAN

FOR WOMEN.

*A Proven Efficient Remedy
(Formula of Dr. Ivan Bloch)*
INDICATED IN

**Impotence and Insufficiency
of the Hormones.**

**YOHIMBIN TABLETS AND AMPOULES
BISMOLAN SUPPOSITORIES AND OINT-
MENT.** For the Treatment of Hemorrhoids.

For literature and other information apply to
CAVENDISH CHEMICAL CORPORATION,
175 Piccadilly, London, W.1.

BUTLER & CRISPE, English Distributors.
MAY, ROBERTS & CO., Ltd., Irish Distributors,
16 Westmoreland Street, Dublin.

IDOZAN

This new colloidal form of Iron is widely prescribed by members of the Medical Profession and gives astonishingly good and prompt results in the treatment of Anæmia.

Retail 5 - per Bottle.

You may recommend it with confidence and sell it with profit.

Write for particulars and acquaint yourself with its worth

Order through your Wholesaler.
Stocked by BLEASDALE, LTD. (York) — SANGERS — MAY ROBERTS — EDWARDS — RAIMES CLARK (Leith) — JOHN THOMPSON (Liverpool) — JAMES WOOLLEY (Manchester) — and others.



CHAS. ZIMMERMANN & CO. (Chem.), LTD. Ferrosan Dept.
9-10 ST. MARY-AT-HILL, LONDON, E.C.3.

A New and Attractive Feature

Present knowledge cannot suggest any improvement of Euthymol Tooth Paste. The new Spring-Cap tube is a marked improvement of the container previously used. Display the new decorated outer on the counter and in the window, and secure your share of the increased demand.



TERMS ON REQUEST.

The "P.D." Outer Series, No. 5.
T.J. 41



THE STRONGEST REASON WHY
YOU SHOULD GIVE YOUR CHILD

ROBOLEINE

THE ONLY TRUE BODY-BUILDER

is the fact that practically all the Child-Welfare centres in the country use it

WHY do these and the great children's sanatoria buy Roboleine by the ton? Simply because Roboleine contains in abundance the three vitamins A, B, and C, at present known to science. And when reading about vitamins remember that they are hardly a new discovery; they actually were contained in Roboleine 15 years ago. Roboleine has been recommended by doctors all over the world ever since that time.

Don't buy anything of this nature for your child unless the makers will tell you its formula. The formula of Roboleine is no secret; it is simply Marrow from the long bones and Jelly from the rib bones of oxen, to which is added "Cream of Milk," Egg-Yolk, and Neutralized Lemon Juice. These concentrated food substances form a COMPLETE diet, capable of BUILDING UP the most weakly Child. The doctors have proved it. The Welfare Centres have proved it. The Children's Sanatoria have proved it.

If you feel that your little one is not making headway, don't take any chances; make absolutely sure of improving the state of health by giving a little ROBOLEINE night and morning. Roboleine is delicious—and children love it; it is as though the youngest of them were its goodies.

But ask your doctor; he will tell you what a wonderful body-builder ROBOLEINE is.

Do not neglect anything which may be the means of giving your child HEALTH. Tear out and post the coupon now. It may be the best thing you ever did in your life. A 1d. stamp will do.

COUPON FOR FREE SAMPLE

To MESSRS. OPPENHEIMER, SON & CO., LTD.
179 Queen Victoria Street, London, E.C.4.

NAME _____

ADDRESS _____

(G.R.)

ROBOLEINE ADVERTISING

is continuing in the illustrated weeklies throughout the Summer because we have found great benefit from it. The fact is that the Public is ever appreciative of a good article which really does all that the makers claim or it. Roboleine is destined to become one of the greatest tonic food successes ever known, and you can hasten this end and benefit yourself by making frequent window-displays. The Public knows ROBOLEINE and is familiar with its properties. Therefore it only needs a reminder from you to effect sales.

WINDOW-DISPLAY TERMS: 50% PROFIT ON OUTLAY

Write to us now for full particulars—

OPPENHEIMER, SON & CO., LTD.
179 Queen Victoria Street, LONDON, E.C.4.



ROBOLEINE

has been prescribed by the Medical Profession for the past 15 years, and all the great sanatoria use it by the TON.

Guaranteed Relief — or MONEY BACK ★



**For Rheumatism, Lumbago, Neuritis,
Gout, Sciatica, and all other Uric Acid
Complaints.**

A Nationally Advertised Line that pays Retailers 25% on a steady increasing sale. Send now for Special First Stock Parcel: 1 doz. 3/- size, 1 doz. 5/- size, ½ doz. 12/- size. Any quantity Carriage Paid. Window Display Terms on Application. All Wholesalers stock **PHYSIKURATE.**

On P.A.T.A. List

As advertised, any dissatisfied customer will receive money back on applying direct—this saves you from trouble and ensures your recommendation and profit.

PHYSIKURATE, Ltd., 92a Upper Clapton Road,
LONDON, E.S.

WORKS WHILE YOU SLEEP

NOVOCHIMOSIN

The New Bactericide Enzyme. An unrivalled agent in the treatment and relief of all forms of

DYSPEPSIA and INDIGESTION

In tablet form, tasteless and odourless. Bottles contain 50 tablets

Sold retail at 2/6

Prices to the Trade: 20/- doz.; & 11 gross.

An extensive advertising campaign bringing this wonderful remedy to the notice of the medical profession and the public is bound to create a great demand.

General Agents for the U.K.:

Chas. L. Huisking, Ltd., 74 GT. TOWER
STREET, E.C.3

Inventor and Manufacturer:

INDUSTRIA CHIMICA, LUGANO (Switzerland)

Dr. Bengué's Ethyl Chloride for Local
and General Anaesthesia in Glass
and Metal tubes.

Large selection of tubes.

Anestile for Local Anaesthesia.
Narcotile for General Anaesthesia.
Methyl Chloride.

Ask for Special Terms and Showcards for
Dr. Bengué's Balsam.

Dr. BENGUÉ & CO., MANUFACTURING
CHEMISTS,
52 Charlotte St., LONDON, W.1.

TWO SPRING MONEymAKERS!

Dr. Cassell's Tablets and Germolene

*Most Effective Spring Advertising Schemes
are now in progress. Are you taking
advantage of them?*

IF YOU MAKE A WINDOW DISPLAY YOU
WILL RECEIVE 5 PER CENT. EXTRA
DISCOUNT—i.e., 5 per cent. extra profit on
a bigger turnover. That **MUST** be true.
Try one fortnight, and note the extra
business. Lots of chemists have found
that the plan pays. All over the Empire
discerning chemists have proved these
splendid lines to be real moneymakers.
Why not at any rate try one window
dressing order this spring?

THE VENNO DRUG CO., LTD.
Manufacturing Chemists,
MANCHESTER.

Telegrams : Seaweed, Manchester.

Telephone : 422 Trafford Park.

BEECHAM'S PILLS

WHOLESALE PRICES.

Beecham's Pills:

1s. 3d. size	.. .. .	10s. 6d. per doz. net.
3s. 0d. „	.. .. .	26s. 6d. „ „
5s. 0d. new size, contains double the quantity of 3s. box,		50s. 0d. „ „

Beecham's Cough Pills:

1s. 3d. size	.. .. .	10s. 6d. per doz. net.
3s. 0d. „	.. .. .	26s. 6d. „ „

Minimum quantity £5 value, Packages FREE, Carriage PAID. CASH WITH ORDER.

Cheques to be made payable to THOMAS BEECHAM, and crossed "Westminster Bank, Ltd., St. Helens."

NURSE HARVEY'S MIXTURE

A safe, simple, and reliable remedy for Children's Ailments is advertised so extensively in the daily and weekly Press as to bring mothers to the retailer without effort on his part.

The selling has been done before the mother reaches the chemist, and, having supplied her, it is only common sense to claim she will buy other family necessaries from him. Moreover, the retailer has a profitable return on a quick turnover.

For Direct Terms apply to—

OSCAR SCRUTON & CO., YORK

REAL SILVER LEAF

As supplied for many years to the leading Houses for Pills, Cachous, &c.

We also supply

GOLD LEAF AND GOLD POWDERS

WHOLESALE ONLY.

E. WINTER & CO., LTD.

Head Office: 64 Cheapside, London, E.C.2. Telephone: Central 953

C. & D. Stock-Taking Sheets

Halve the Labour of Taking Stock.

Price of Complete Pad, 2/6 post free.

The Chemist & Druggist, 42 Cannon St., London, E.C.4

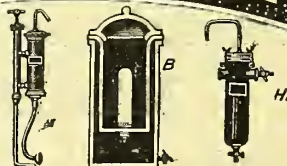
Publications Dept.

BRITISH OWNED.

THE
BRITISH
BERKEFELD FILTER

H.H. BROWNLOW.
R.S. BROWNLOW.

Filter Cylinder.



SARDINIA HOUSE
KINGSWAY
LONDON.
W.C.2

One of the very best sellers in your business,
with a specially rapid sale, and well advertised.



WOODWARD'S "GRIPE WATER"

1/3 per Bottle

Under the protection of P.A.T.A.

Net Price: 1 gross delivered carriage paid and in free case to your door, **£7.**

Your profit is 28½ per cent

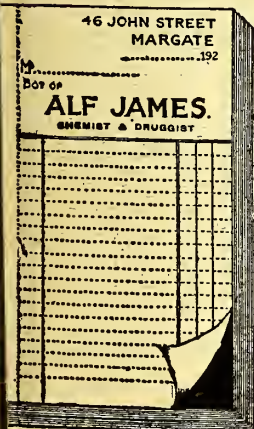
W. WOODWARD(1920)Ltd., 79-87 Fortess Rd., London, N.W.5

1/3

You never know

what may happen by not keeping a duplicate copy of all your correspondence. It's so easy to do this with the 'Charterhouse' Duplicate Order or Memo Book which is made only with 100 printed tear-outs 8 by 4½, and 100 plain duplicates. 1st leaf, good white bank paper, printed any ordinary heading, and perforated, 2nd leaf, white paper, plain and fast. Wired binding, stout Kraft flush paper covers; one sheet of carbon per book.

The "Charterhouse"
Duplicate Order or Memo Book



Saves time, money and trouble. Each sheet is numbered so as to give an accurate record.

Prices per Book:

12 books...	1/9
24 "...	1/8
36 "...	1/7
48 "...	1/6
72 "...	1/5
144 "...	1/4

Numbering in duplicate, 3d. extra per book.

These books can also be had with Cash Lines at same prices.

J.C. KING & CO.

42-60 Goswell Rd
LONDON, E.C.1.

Sulfluid

RAPID CURE.

INSTANT RELIEF,

RINGWORM, SCABIES, IMPETIGO

SOVEREIGN CURE FOR

ECZEMA AND OTHER SKIN DISEASES.

The principal ingredient in this quick and certain cure for skin diseases is Sulphur in a liquid form hitherto unobtainable. Owing to its extraordinary power of penetration it reaches the root of the trouble and can be guaranteed to effect a cure of the most stubborn case of ringworm within 14 days—Scabies and similar diseases in very few applications. It is guaranteed to be non-poisonous, non-corrosive and non-irritant to the most tender skin.

RETAIL PRICE, 3/-; TRADE PRICE, 27/- per doz. (P.A.T.A.)

Packed in half-dozens in attractive display cartons.

HOUSEHOLD OINTMENT.

Sulfluid Household Ointment is the same potent solution in ointment form and will be found invaluable in the treatment and rapid cure of minor skin troubles, such as cuts, grazes, burns, scalds, chaps, boils, pimples, and will impart a smoothness and freshness to tender skins in cold or bad weather.

RETAIL PRICE, 1/9, 3/-; TRADE PRICE, 15/9, 27/- (P.A.T.A.)

Packed in dozens in attractive display cartons.

Mrs., PARKER, WARD & CO., Ltd. (124), Windsor House,
Victoria Street, S.W.1

Sole Distributing Agents to the Wholesale and Retail.
W. EDWARDS & SONS, 14-18 NILE STREET, CITY ROAD, N.1.

THE METHYLATING Co., LTD.

for METHYLATED SPIRIT.

KINNAIRD HOUSE, Pall Mall East, LONDON, S.W. 1.

Telephone : Regent 5621.

Telegraphic Address : "Methcolim, Phone, London."

ADEPS LANÆ, P.B.

THE FINEST BRITISH LANOLINE PRODUCED

IS MANUFACTURED BY

THE PHARMACEUTICAL LANOLINE CO.
Carnwath Road, Fulham, London, S.W. 6.

Telephone : Putney 42.

WHO INVITE ENQUIRIES. Telegrams : "Batapo, Walgreen, London."

MADE IN SHEFFIELD, NOT IMPORTED

A User writes :—"Can't understand people buying foreign blades when such as yours are obtainable."

WATTS

12 Perfect Blades
in every
doz.

3/6

per doz.

WATTS



They have a super keenness that ensures perfect service and makes them different from and better than all others.

WATTS

50 %
profit on
cost for
the dealer.

WATTS

JOHN WATTS, Dept. 3, Lambert Works, SHEFFIELD
Established over 150 years.
London : 24 Redcross Street, E.C. 1

SALVO PETROLIA

The Perfection of Petroleum Jelly

MANUFACTURED SOLELY BY

THE DEE OIL COMPANY, Ltd.

D 23/24, EXCHANGE BLDGS., LIVERPOOL.

Telephone : Central 3859. Telegrams : "Cestrian Liverpool."

Packed in barrels, kegs and smaller
packages according to requirements.

Other Grades

PETROLEUM JELLIES, WHITE BASES, ETC.

Samples and prices on application.

"OLEUM DEELINÆ," a certain cure for Eczema.

PETROLEUM JELLY.

Gough, Kidston & Co.

Chemical Manufacturers,

Tanning & Dyewood Materials & Extracts,

Gum & Wax Merchants,

Tel. No. :
Minorities 2666 and 2667.

Tel. Add. :
"Kidstonism,
Bilgate, London."

43/45 Gt. Tower Street, London, E.C. 3.

WORKS :
BERMONDSEY.

Tel. No. : Hop 2029.

Have You Secured Your Supplies?

August 4, 1922.

Public Analyst's Report.

REPORT ON A SAMPLE OF LIQUID
PARAFFIN MARKED E 870a.

Specific Gravity at 60° F - 892

Viscosity at 100° F (Red-
wood No. 1 Viscometer) 265"

Cloud Test - - - - - 15° F

The sample is colourless, transparent, odourless and tasteless, and has no fluorescence.

A mixture of four millilitres of the sample, two millilitres of absolute alcohol and two drops of a clear saturated solution of lead oxide in solution of sodium hydroxide, when kept at 70° C for ten minutes, remained colourless.

When three millilitres of the sample are heated with an equal volume of sulphuric acid in a test tube placed in boiling water for ten minutes with frequent shaking, the acid layer, after separation, is not darker than pale brown.

Ten millilitres of 90% alcohol when boiled with five millilitres of the sample are not acid to litmus.

The sample complies with the requirements of the British Pharmacopœia except in specific gravity,

Signed ROBERT REDWOOD.

NOTE.

It will be perceived that the oil has a specific gravity of 892 and is therefore HIGHER than the B.P. standard.

STERNS PARAFFINUM LIQUIDUM B.P.

S.G. 890

High Viscosity.

Non-Clouding.

Wholesale Trade Only

STERNS LTD.

80 Royal London House, Finsbury Square, London, E.C.2.

GENUINE RUSSIAN LIQUID PARAFFIN

ALL GRAVITIES, HIGHEST VISCOSITIES.

"JASMINE BRAND" PETROLEUM JELLIES

WHITE AND AMBER.

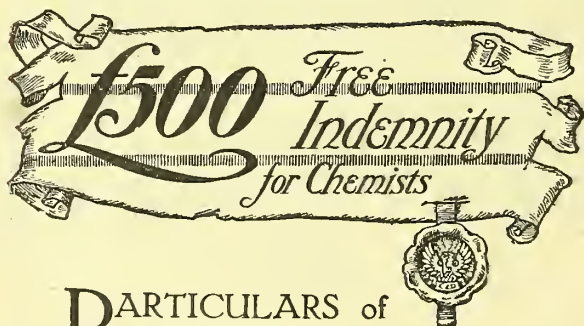
B.P.
1914
FINEST
QUALITIES.
COMPETITIVE
PRICES.**"JASMINE BRAND" WHITE OILS** CHEM. PURE, WATER-WHITE,
TASTELESS, ODOURLESS.

FOR MANUFACTURING PURPOSES.

LUBRICATING OILS FOR ALL PURPOSES.

THE PURE RUSSIAN LIQUID PARAFFIN CO., LTD.

3 ST. HELEN'S PLACE, LONDON, E.C. 3.

Actual Refiners and Manufacturers at their works near London.

PARTICULARS of this important extension of the benefits offered to subscribers to **THE CHEMIST AND DRUGGIST** are now available, and may be had on application to

THE PUBLISHER,

THE CHEMIST AND DRUGGIST

42 Cannon Street, London, E.C.4.

**C. W. JOHNSON & CO.**

Woburn Lodge

Upper Woburn Place, W.C.1.

Direct Importers.

Packed and Bulk.

Prices and Samples on application.

Telephone

Museum 5774

Petroleum Jelly

White, Yellow, Amber,
& Ruby Red, for all
Pharmaceutical and
Veterinary purposes

MEADE-KING, ROBINSON & CO., LTD.
LIVERPOOL - LONDON - MANCHESTER - LEEDS.

LIQUID
PARAFFIN B.P.
TOILET PARAFFIN
BRILLIANTINES
OLIVE OILS
HONEY
EUCALYPTUS OIL

Send your enquiries to

REDDGRAVE BUTLER & Co., Ltd.

Park Lodge,

Forest Lane, Stratford, London, E.15

SUTTON'S

CLOUDY AMMONIA

To-day, as ever, the extra strength of
SUTTON'S

CLOUDY AMMONIA

makes it the most
efficient and the
most economical
for all purposes.

The enviable reputation
of G.F. Sutton, Sons and
Co. ensures that in
handing out a "Sutton"
product the retailer is
giving his customer the
very finest quality.
Doesn't that mean
"repeat" orders every
time for YOU?



Send for particulars of FREE
SPRING OFFER to

G. F. SUTTON, SONS & CO.
Osborne Works, Brandon Rd.
King's Cross, LONDON, N.7.

"A good name is more than riches"

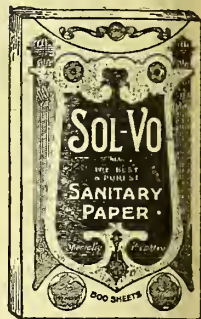
SOL-VO SANITARY ROLLS & PACKETS.

SOL-VO

REGD

THE BEST & PUREST

SANITARY PAPER

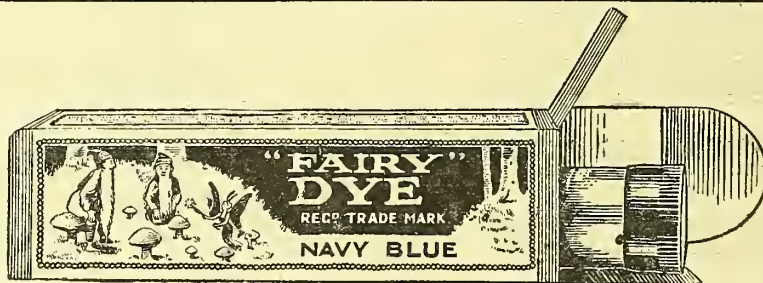


	per doz.		per doz.
Three dozen Rolls	... 7/- net.	Three dozen Packets	... 10/- net.
Half gross	... 6/6 "	Half gross	... 9/6 "
One gross	... 6/- "	One gross	... 9/- "
Five gross	... 5/3 "	Five gross	... 8/3 "

CARRIAGE PAID. CASES FREE.

FORD, SHAPLAND & CO. Ltd.LABELS & SHOWCARDS — PRINTERS — CARTONS & ENVELOPES,
GT. TURNSTILE, HIGH HOLBORN, LONDON, W.C.1.

TELEGRAMS: FORSHAPCO. WESTCENT, LONDON.

TELEPHONES: { HOLBORN 5503.
CITY 65.**FAIRY DYES**

Mean Greater Turnover for You—and Absolute Satisfaction for Your Customers.

THERE is no more attractive line on the market to-day—there is no better seller—and no article has made larger strides in popular favour.

FAIRY DYES

are now sold in glass tubes, encased in smart, clean-looking "safety-first" cartons. They are retailed at 2d. each, made in 25 popular shades and colours, and are extensively advertised in the right publications.

You can rely upon Fairy Dyes—for prompt delivery in any quantities—for fresh stocks—for quick, easy-to-handle, clean turnover, and as tried favourites your customers are always satisfied. See that you are supplied without delay.

For Trade Terms and particulars write to

FAIRY DYES, LTD., 37-41 GLASSFORD ST.,
GLASGOW.

London Depot

292 UPPER STREET, ISLINGTON, N.1.

Why not Specialise IN DYES



THERE is money and an exceptionally quick turnover for the Chemist who is foresighted enough to stock a good and representative range of "Luton" Straw Hat Dyes.

These dyes—the finest of their kind in the world—are of entire British manufacture, and are popular amongst ladies everywhere and in every walk of life. To dye or "touch up" a hat with "Luton" is a very simple procedure. Supplied in dull or glossy finish.

Trade discounts on "Luton" Straw Hat Dyes are right for the Chemist, and the manufacturers are making the product known throughout the country by means of a very extensive advertising campaign.

**"ENTIRELY BRITISH—BRITISH ENTERPRISE—
BRITISH LABOUR—BRITISH CAPITAL."**

Stock the most popular and famous of hat dyes—"Luton"—there is no other so efficient, so perfect or long-lasting, and it is **All British**.

Attractive showcards, booklets and unique "sales stimulators" supplied every Chemist who orders "Luton" Straw Hat Dyes.

ALL CASES AND CONTAINERS FREE.

A special non-inflammable series is supplied for export.

Write to-day for Trade Terms and full particulars.

WHITAKER & Co.

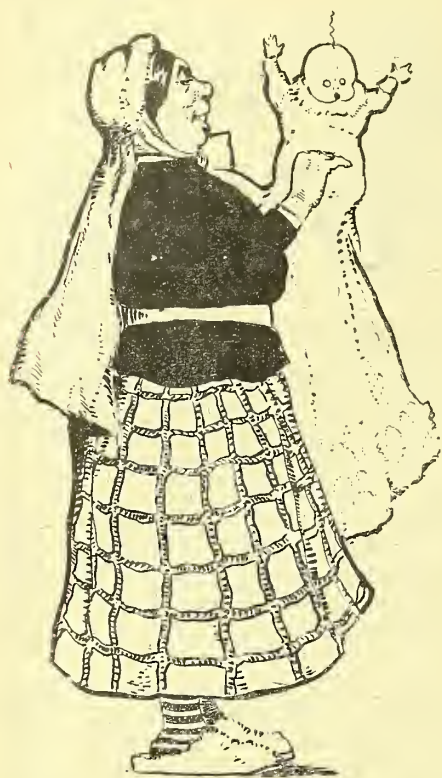
Colour Works - - KENDAL.

London Office and Showrooms :

61 & 62 CRAVEN HOUSE,
KINGSWAY,
W.C.2.

The 'LUTON' STRAW HAT DYES

SUPPLIED IN DULL OR GLOSSY SERIES.



What, Another ?

Yes, another edition of
May Roberts' Catalogue
has just appeared on the scene
and any Chemist who cares to
adopt it can have it free of
charge by sending a post-card.

The whole of our Trade has been built up on our Catalogues, which are our only Travellers. This is why in order to maintain our existing trade, and to attract new custom, it is absolutely vital that our Price Lists should be up-to-date, complete, easy of reference, and very fully illustrated.

It is a Buyers' Guide to the Chemists' Sundries and Proprietary Goods Trade, and we shall be happy to send a copy to any Pharmacist on receipt of a post-card.

Part 1. Sundries and Glass.

Part 3. Photographic Goods.

Part 2. Proprietary Medicines.

Part 4. Stationery and Tobacco.

Part 5. Drugs and Counter Specialities.

May, Roberts & Co., Ltd.,

7/13 Clerkenwell Road, London, E.C.1

And at

Dublin, Liverpool and Plymouth.

THE CHEMIST AND DRUGGIST SUPPLEMENT

2 CANNON ST.
LONDON E.C. 4

APRIL 28, 1923

is Supplement is inserted in every copy of The Chemist & Druggist.

THE CHEMIST AND DRUGGIST SUPPLEMENT REVISED ADVERTISEMENT TARIFF.

Businesses Wanted and for Disposal, Premises to Let, Goods for Sale, and Agencies—6/- for 10 words; every additional 10 words or less, 6d.
ADVERTISEMENTS OPEN—6/- for 40 words; every additional 10 words or less, 6d.
ADVERTISEMENTS WANTED—2/- for 18 words; every additional 10 words or less, 6d.

Legal Notices, Tenders, Auctions, and all specially-spaced announcements, 1/3 per nonpareil line (12 lines = 1 inch single column).

Miscellaneous (Wholesalers') Section for odd and second-hand lots—10/- for 60 words; 1/- for every additional 10 words or less.

EXCHANGE COLUMN (for Retailers, etc.)—**Twopence** per word, minimum 2/-

Box Number.

Replies may be addressed to a registered number or non-de-plume, c/o this Office, at a charge of 1/- extra for each advertisement.

Payment.

Advertisements are prepaid, so that remittance must accompany instructions in each case. If it be necessary to telephone or telegraph urgent announcement this may be done, provided the money is telegraphed at the same time.

THE CHEMIST AND DRUGGIST, 42 Cannon Street, LONDON, E.C. 4.

Telephone: Central 3617 (3 lines).

Telegrams: "Chemicus, Cannon, London" (2 words).

SENDING FOR PRESS.

ALL ADVERTISEMENTS INTENDED FOR INSERTION IN THIS SUPPLEMENT

**REACH US
LATER THAN**

FIRST POST THURSDAY MORNING.

CHEMISTS' TRANSFERS.

Messrs. ORRIDGE & CO., 56 Ludgate Hill, E.C.

Telephone No.: City 2283.

be consulted at their Offices on matters of SALE, PURCHASE and VALUATION

BERLOO STATION (15 Minutes from).—Death vacancy. Retail and Dispensing Business returns, £2,300 per gross profit, 33½ per cent.; single-fronted shop, modern well fitted and stocked; good living accommodation; lease; rent £85, sublet £40; price for speedy transfer, £1,550.

NGFORD (Near).—Cash Retail Business, prominent in busy market thoroughfare; returns, under management £20 and £25 per week; double-fronted shop; 7-roomed house, private entrance, garden; 21 years lease £750.

DON, S.W. (Distant Suburb).—General Retail Business, N.H.I. Dispensing; returns average over £2,000 per gross profit, 25 per cent.; single-fronted shop, well fitted and stocked; lock-up Pharmacy; held on lease, at moderate price £1,550.

NG (Near).—Retail and Dispensing Business; returns £200; net profit, 25 per cent.; held on lease at moderate price £1,550; good living accommodation, with side entrance; terms, stock at valuation, and sum for goodwill, lease, and application.

DON, S.E. (Suburban).—General Retail Business, N.H.I. Dispensing; returns, £1,400, at full prices; single-fronted shop, well fitted and fully stocked; good living accommodation; held on lease; rent, £28 per annum; further application.

DON, S.E. (Good-class Residential Suburb).—Old-established Business, Retail and Dispensing; gross receipts between £4,000 and £5,000; present rate less; there residence, with private entrance; price to be agreed on application.

DON.—Wholesale Business, with established connection for sale; inquiries must be accompanied by a banker's reference.

8.—**LOWESTOFT** (Within Easy Distance of).—Country Business, Retail, Prescribing and Agricultural; established many years; returns, £3,200 per annum; net profit, £800; double-fronted shop, well fitted good, saleable stock; good living accommodation; garden; new lease; rent, £80; no serious opposition; price £2,500; property may be purchased if required.

9.—**KENT** (Residential District).—Retail, Dispensing and Photographic Business; returns, about £2,000 per annum; net profit, approximately 25 per cent.; scope for increase; living accommodation; moderate rental; held on lease; price £1,100, or near offer.

10.—**SOUTH OF ENGLAND**.—Retail and Dispensing Business, with small veterinary connection; established 1870; returns, 1922, £2,300; now doing £41 weekly; gross profit, 33½ per cent.; double-fronted shop; living accommodation; held on long lease at low rental; price £1,600 cash.

11.—**WEYMOUTH** (Near).—General Retail and Dispensing Business for disposal, owing to death of proprietor; returns, £2,530, present rate less; scope for large increase; valuation terms entertained; further details on application.

12.—**CARLISLE** (Within Easy Distance of).—Retail and Dispensing, and Agricultural, with Kodak Agency; returns, about £1,000 per annum; net profit, £250; rent £25, rates, £4; no opposition; price £750.

13.—**KENT**.—General Retail, Dispensing and Prescribing Business; very old-established; returns last year, £3,255, at usual prices; double-fronted shop; heavily stocked; new lease will be granted at a moderate rental; price to be arranged.

14.—**BUCKS**.—Old-established Business, Retail, Dispensing and Photographic; returns, between £2,500 and £3,000; well-fitted shop, heavily stocked; ample living accommodation; garden; new lease at low rental; price £1,900, or near offer.

VALUATIONS FOR STOCKTAKING.

O. & Co. desire to emphasize the necessity of a periodical Statement of Account by which means alone Profit, and of Business, &c., can be determined. Involving as this does the labour of Stocktaking and Valuation, it is often omitted and eventually becomes the cause of confusion and loss.

O. & Co. are prepared to undertake these essential duties and make **Special Terms** for such services.

ORRIDGE & CO., 56 LUDGATE HILL, LONDON, E.C. 4

BERDOE & FISH

Valuers and Transfer Agents,

41 Argyle Square, KING'S CROSS, W.C.1.

1.—YORKS. (W. RIDING).—High-class Drug Stores, with Photographic; returns, £2,000; no N.H.I.; net profit, £500; main road position; plenty of scope in qualified hands; fully stocked; price about £1,300.

2.—SOUTH COAST.—Sound, Light Cash Retail; neglected; present returns approach £1,000; plenty of scope; low rent on lease; price for early sale, £650.

3.—KENT.—Very profitable Cash Retail and Prescribing, with Kodak Agency. Returns, over £1,200. Practically unopposed; low rent, on lease. 7-roomed house; excellent stock. Price £650. Strongly recommended.

4.—SURREY (7 Miles Out).—Good middle-class Drug Stores, in growing district; returns over £800; plenty of scope in qualified hands, splendid house and modern Pharmacy; very low rent; on lease; price about £700.

5.—LONDON, E.—Genuine Cash Drug Store, with Kodak Agency; returns, £1,700; good opening for N.H.I.; practically unopposed; 8-roomed house; lease granted; well stocked; price, £900 cash; recommended.

6.—LONDON, W.—Good Middle-class Drug Stores; returns, £730; net profit, £210; scope for increase; large shop, with house attached; price £400.

7.—LONDON, S.E.—Cash Drug Store, in densely populated district; returns over £20 weekly; fine opening for N.H.I.; lock-up shop; fully stocked; price £600 cash, or near offer.

BUSINESSES WANTED.

STOCKTAKING VALUATIONS.

We are now booking dates for June and July, and invite applications for our special terms for doing this work. Our long and varied experience enables us to do the work quickly and without disturbing the general routine of business.

ESTABLISHED 1870.

Telephone: 651 Museum.

The Association of Mnfg. Chemists

— LIMITED —

Head Offices: 26-28 Kimberley House, Holborn Viaduct, London, E.C.1 (and at 2 Bixteth Street, Liverpool).

PARKIN S. BOOTH, Accountant and Valuer. PHONE: CITY 6942-43

WE HAVE THE FOLLOWING BUSINESSES FOR DISPOSAL.

1.—DOVER.—Retail Corner Pharmacy in main street; well-fitted and fully stocked. Returns £15 weekly, but could be easily doubled; good scope for general Photo and Optic development; little opposition. Lock-up shop, with store-room and cellar, but living accommodation might be arranged. 20 years' lease at £20 per annum. Price £625 or offer.

2.—SURREY.—Small Manufacturing Business; premises excellently fitted and suitable for factory use; near station. Held on lease, with 18½ years to run, at £60 per annum. Further particulars on application.

3.—MIDLANDS.—For immediate disposal by order of trustee under deed of assignment, small Retail Business, with N.H.I.; stock about £200; fixtures, £150. Returns £10 weekly, exclusive of N.H.I., but good prospects for development, as business was only recently established. Rent, including living accommodation, 14s. per week. Lease might be arranged.

4.—LONDON, N.—Good Retail Business, taking £1,500 per annum; well-stocked and fitted; little opposition. Two good living rooms; 7 years' lease, with rent, £52 per annum; inclusive price, £950.

5.—GOLDERS GREEN.—Finely situated Portrait Studios and Photographic Business; lease 8½ years, at £175 per annum; premises consist of basement, double-fronted shop, and 3 floors above. Full particulars on application to this office.

6.—WANTED.—North of England, or East or West Coast, Retail Chemist and Druggist's Business, with turnover £2,500-£3,000 per annum; or would entertain neglected Business if scope for development; capital available, £1,500. Full particulars to this office.

STOCKTAKING.—Now is the time to take your stock. Perhaps it is too much trouble or you have not the time to spare.

Then why not consult the Practical Firm who will do this work for you for a small inclusive fee, without interference with your work? For full particulars write as above.

FREDK. H. RICHARDS

Expert Chemists' Valuer, Transfer Agent & Stocktake.

ACCOUNTANCY IN ALL ITS BRANCHES.

LONDON SUBURB.—Busy market thoroughfare; return about £1,000; lock-up shop and parlour; long lease price £750.

JERSEY.—Large shop and nice house; returns about £700; can be increased; price for Freehold and Business about £1,550.

LONDON.—Small Drug Store; lock-up; returns about £700; price £275, or offer.

GLoucestershire.—Very nice Business and house returns £1,000, with scope for increase; price, including Freehold, £1,400, or offer; mortgage can be arranged on property.

8, CHICHESTER HOUSE, CHANCERY LANE, W.C.2

Phone: HOLBORN 1057.

ERNEST J. GEORGE

Chemists' Valuer and Accountant.

VALUATIONS FOR INCOME TAX
PROBATE, PARTNERSHIP, TRANSFER

Carried out in any part of the kingdom; highest references.

Accountancy.—I specialise in the preparation of accounts for Income Tax purposes.
Write me if any difficulty.

3 ST. PAUL'S CLOSE, WALSALL. Tel. 774

THOS. TOMLINSON & SON

CHEMISTS' VALUERS, TRANSFER AGENTS,
AND EXPERT STOCKTAKERS,

45a MARKET STREET, MANCHESTER.

ESTABLISHED OVER HALF A CENTURY.

Telegraphic Address: "Tomtom."

SALES BY AUCTION.

THURSDAY, MAY 3, at 11 a.m.
BROUGHTON TERRACE, OFF WOODHEAD ROAD,
BRADFORD.

UNIQUE OPPORTUNITY.
500 COUNCIL HOUSES BEING BUILT NEAR.

Messrs. P. L. CARROLL & CO. are favoured with instructions by Messrs. J. Savage & Co., Ltd. (who are relinquishing their wholesale druggists' department), to offer Sale by Public Auction, upon the premises as above (un previously disposed of by Private Treaty), the

DYESTALERS' AND GROCERS' STOCK,
including Patent Medicines, Medicinal and other Herbs, Dr Fruit Wines, Toilet and other Soaps, Patent Foods, Che Bottles, Tins and Cases, Boot Polishes, Oxo Cubes, Rice, etc.,

BLACKING-MAKING PLANT AND MACHINERY.
SYPHON-FILLING PLANT BY BRATBY & HINCHCLIFF

Essences,
1913 FORD VAN, in good running order,
Syphons, Boxes, Carbonate Soda, Vitriol,

OFFICE FURNISHINGS, No. 10 SMITH PREMIER
TYPEWRITER, MAHOGANY SLOPE DESK,
Counters, Racks, etc., etc.

To be offered first as a going concern, and, if not sold, piecemeal.

Also on THURSDAY, MAY 10, at 7 p.m.,
at the Empress Hotel, Tyrral Street, Bradford (unless previously disposed of by Private Treaty), as a going concern, the

RETAIL CHEMISTS' AND DRUGGISTS' STOCK-IN-TRADE
FIXTURES AND FITTINGS,

at 319 Legrams Lane, Bradford, together with the Good of the Business at present carried on by the owners at latter address.

Further particulars and permission to view obtainable from Auctioneers.

BUSINESSES WANTED.

VERTISER desires to purchase for cash a best-class Dispensing Business, situate between West End and Southington; or would consider suitable premises. Particulars in confidence to "Mick," care of The British Drug Houses, 16/30 Graham Street, N.1.

EMIST requires genuine Business; returns about £1,200, with plenty of scope for increase, and good living accommodation; bear every investigation. State full particulars, in confidence. 55/7, Office of this Paper.

EMIST'S Business or Drug Store wanted; cash up to £400; larger concern entertained on mortgage or agreement. Consider active Partnership, or Manage with view to sell. Well up in all branches of the trade, including photography. Write "Business," 56/34, Office of this Paper.

EMACIST desires good-class Business in a healthy locality; turnover, about £2,000; no residence required; would enter position with view to early Partnership or succession. Office of this Paper.

AGENCIES.

TRALIAN and New Zealand Agencies required for all chemists' lines. Wholesale only. Connections throughout Asia. Principal can be interviewed in London. 24/767, Office of this Paper.

N Car.—Representative, good connection with Chemists, Home, Eastern Counties and Kent, requires additional lines on commission basis to help expenses. Replies, "O. C." (P.C.B. Office of this Paper.

DER PUFFS.—Actual Manufacturers, with wide range, no quality and finish, competitive prices, have territory including London, for Representatives with first-class connections amongst Perfumers, Chemists, and Stores. Commission of 20 per cent. on first order and repeat. Particulars in confidence. 57/20, Office of this Paper.

RESENTATIVES, with established connection, required to sell well-known Proprietary Article to Retail Chemists in Wales and North Wales; liberal commission. State goods and exact area covered. 53/30, Office of this Paper.

SALES DEVELOPMENT.

CONCERNS desiring to develop the sale of Proprietary Articles of merit in London and the South are invited to write us, Sales and Advertising Service offered; Travellers engaged and supervised; Accounts carried if desired, or will act as Buying Agents.

Address, Managing Director, Selling Service, Ltd., Cavendish House, 20 Old Cavendish Street, W.1.

FOR SALE.

AN & SPEDDING, LTD., 48 Deansgate, Manchester, offer for Sale all their Fixtures and Fittings (which are also modern). Closing down May 25 next owing to inability to continue alternative premises.

TO LET.

et, large, bold, double-fronted Shop, situated in Stamford Hill, and in a position eminently suitable for Chemist; light laid on; moderate rent; lease can be had. P.C.B. Office of this Paper.

APPRENTICE.

ENTICESHIP wanted in N. London; registered student; intelligent and gentlemanly. 52/3, Office of this Paper.

A DISCLAIMER.

MESSRS. COATE & CO (AXMINSTER), LTD., desire to intimate to their many friends throughout the world that they are in no way affiliated or connected with any other firm. A sum of £50 will be paid to any person giving information that will lead to the detection of any person spreading false rumours.

Axminster.

(Signed) E. H. C. BOND.

23rd April, 1923.

BUSINESSES FOR DISPOSAL.

6s. for 50 words or less; 6d. for every additional 10 words or less, prepaid.

The ADVERTISER may if preferred have replies addressed to this Office, and forwarded on payment of an additional charge of 1/-.

BRITISH COLONY.—Healthy climate; old-established firm of Chemists require a capable, qualified man as Managing Director, to invest £5,000, with view to ultimate succession; salary, £1,000 per annum, plus commission, and interest on share capital. Apply, Berdoo and Fish, Valuers, 41 Argyle Square, King's Cross, W.C.1.

BRUSSELS.—Pharmacy for Sale, situated in the best position, centre of the city; new modern building; very suitable for English or International Chemist. Apply to Mr. Albert Warnant, 51 Rue de la Concorde, Brussels.

COLWYN BAY DISTRICT.—Excellent Herbalist, etc., Business, with freehold property; main road; splendid opportunity; price £2,500. Speechley, Accountant, Colwyn Bay.

GLOS.—For immediate disposal, Retail Chemist's Business, with 6-roomed dwelling house attached; main road, in rapidly-growing neighbourhood; takings £1,000 per year; good N.H.I., good scope Optics and Photo. Splendid opportunity for live man. Good, saleable stock, nicely fitted shop, electric light; price £450. Apply 57/19, Office of this Paper.

HOME COUNTY.—Small Business in country market town, close to sea; large, single-fronted lock-up shop, well fitted, with large store room and small office; Kodak Agency; rent £33, on lease; takings, under management, £17-220 weekly; easily worked; price £400 for quick sale. Apply 56/12, Office of this Paper.

LIVERPOOL DISTRICT.—Good Dispensing and Retail Business; Kodak Agency; turnover average £2,000; no N.H.I.; proprietor retiring; lease 7 years to run; nominal rent; price £1,900. Apply 23/750, Office of this Paper.

LONDON, E.—Drug Store; lock-up and parlour; under management £10 to £15 week; low inclusive rent, electric light; lease would be granted; opening for N.H.I., optics; profits very good. Stock, £300; nice fixtures; good reason for disposal; every investigation. Offer nearest £550 secures. 57/13, Office of this Paper.

LONDON, S.E.—Drug Stores (lock-up shop); returns over £1,000; electric light throughout; splendid opening for N.H.I. and Photography; fully stocked; no near opposition; densely populated district; a genuine money-making concern; fullest investigation courted; price £550 cash. Apply, "Bon," 52/34, Office of this Paper.

LONDON, S.E.—Retail and Dispensing Business; working-class district; returns £2,000 per annum; net profit about 33½ per cent.; plenty of scope for increase; living accommodation, very low rental; price £1,300 cash. Apply, 56/18, Office of this Paper.

LONDON, S.E.—Old-established Family and Dispensing Business for disposal, with Post Office, good house attached, rent £46. Chemist returns about £1,300, and a clear income of £12 per month from P.O.; price for stock, lease, fixtures, fittings, and goodwill, all at £1,150. Write 58/17, Office of this Paper.

LONDON, S.W.—Bold corner Pharmacy; main road; select neighbourhood; no near opposition; new modern fittings; Kodak Agency, trade £30/35 weekly; lock-up shop, £1 weekly inclusive on lease; price, £1,000, including £650 stock. The freehold premises, comprising comfortable, well-appointed six-roomed house, with side entrance and garage (can be let off for 15s. weekly), can be purchased for £1,250. Apply, 57/36, Office of this Paper.

MID WALES.—Country town; centre of large agricultural district. Old-established Dispensing and Veterinary Business for Sale, with Wine and Tobacco Licences, also Photography; turnover £1,500; new lease granted for shop, house and garden; offers wanted. Apply, J. & A. Davies, Solicitors, Llanidloes, Montgomeryshire, Solicitors to the Administrators.

SHEFFIELD.—Middle-class Retail Business with N.H.I. Dispensing, large corner shop, garage, warehouses, private yard, and excellent living house; owner retiring; under unregistered management for many years. Property could be bought or lease granted. Returns have been £80 per week; could, under energetic qualified management, be rapidly brought up to this figure again. Price goodwill, plus stock and fixtures at valuation. Apply, 10 Henry Street, Handsworth, Sheffield.

SOUTH COAST.—Popular health resort. High-class Dispensing and Store Pharmacy, main road, important central position, facing new main road to cliffs and adjacent to building scheme and houses in course construction; magnificently fitted and stocked on modern store lines; lock-up shop, 52 ft. by 18 wide; Kodak Agency; space and scope for Invalid Wines, Optics and Library; recently established; now doing £50 weekly; a sound business with excellent prospects; opposition negligible; price £3,000. Write to 49/16, Office of this Paper.

WEST MIDLANDS COUNTRY TOWN.—Good all-round Business; Agricultural, Veterinary, also good Dispensing and Family Trade; good house and shop on main street (freehold); warehouse and large garden at back; turnover last year £3,000; grand opportunity for man with personality and capital; price £4,500 inclusive. Further particulars, in confidence, on receipt of banker's reference. 54/39, Office of this Paper.

YORKSHIRE, WEST RIDING.—Newly-opened Business for Sale in good position, main road, unopposed; excellently fitted; electric light; small house attached; rent £26; average takings under manager £4 daily since opening; price £600, or valuation of stock and fixtures; special reasons for disposal. 55/21, Office of this Paper.

YORKS, WEST RIDING.—Sound Business in manufacturing town, turnover about £25 week, well stocked; main road; price, valuation of stock and fixtures, about £700, and small goodwill. Good living house. 57/1, Office of this Paper.

A GENUINE old-established Business in Isle of Wight town; best position, all-year trade, Kodak and Rexall agencies; nominal rent; exceptional profits, long lease. Opportunity for N.H.I., and great scope for enterprising man. Small house. Full details and investigation; banker's reference essential. 57/8, Office of this Paper.

CHEMIST-OPTICIAN'S Business for Sale in good middle-class provincial town; price £3,000; principals only dealt with. "A. Z.," c/o Mr. Tulley, 2 Camomile Street, E.C.

DRUG Stores, Brighton, busy main thoroughfare; near sea; trade averages £20 weekly; there is every possible chance to increase takings; double-fronted shop; 3 or 7 rooms can be had; good stock, fixtures and fittings; £500. Bertram Howell, 114 Queen's Road, Brighton. (Send stamp.)

FOR Sale (to wind up estate), the old-established Business of Chemist and Druggist carried on so long and successfully by the late Mr. James Dorman, at No. 1, George Street, Stranraer, together with the dwelling-house, shop and large stores there; immediate occupation. Particulars of turnover, etc., from Percy J. Adair, Solicitor, Stranraer, who will receive offers up to May 5 next.

GENUINE Wholesale Druggists' Business for Sale, with premises. Established 36 years, West Riding Yorkshire. Two large semi-detached houses, with 5,000 square yards of land (freehold), including fruit garden, tennis court, large yard with two-storied warehouse; vacant possession of one house; tenant of other paying rental £42 per annum. Ten minutes from station, main line. Business as going concern. Returns last year £2,111. Splendid opportunity for extension. For price business, stock, and property apply, John D. Fox & Sons, EbrIDGE, Bingley, Yorks.

50 MILES from London.—Old-established, good-class Business, with Kodak Agency, N.H.I., doing £2,000; double-fronted shop, vestibule entrance, good fittings; excellent house, dining and drawing rooms, 4 bedrooms, kitchen, scullery, store rooms, dark room, and outbuildings, with motor accommodation, and small garden. Price for freehold, goodwill, fixtures, fittings, and stock, £5,000; good reasons for selling; exceptional opportunity. 57/35, Office of this Paper.

£600. MANUFACTURING Perfumers and Wholesale Sundries, London, established 4 years, 500 regular customers; excise permit; owner handicapped by lack of capital. Price includes stock, utensils, fittings, fixtures, formulae. Would entertain partnership as alternative. "Otto's," 27 Lansdowne Gardens, S. Lambeth, S.W.8.

We desire particularly to draw the attention of Colonial and Foreign Subscribers to the fact that in cases where they require partners, agents or assistants, or wish to sell their businesses, an Advertisement in this Supplement, placed in every copy of "The Chemist and Druggist," should be the readiest means of helping them to attain their object. The tariff for such announcements is given under the appropriate headings in the Supplement. Instructions and remittances can be sent to us direct or through the advertisers' correspondents in this country.

SITUATIONS OPEN.

[HOME.]

RETAIL.

6s. for 40 words or less; 6d. for every additional 10 words or less, prepaid.

The ADVERTISER may if preferred have replies addressed to Office, and forwarded on payment of an additional charge of 6d.

CARDIFF.—Qualified Manager wanted; live on premises; up in Shipping and Photographic trade. Good window dresser. Must be well recommended as a smart and capable business man. Apply, stating age, height, with two references and photo, W. G. Duck, St. John's Square, Cardiff.

COVERTRY.—Improver or Junior wanted for few months (May-September), quick Counter Trade and Dispensing must be good salesman. Full particulars, salary, etc., letter. Lester & Williamson, Chemists, Great Heath, Coventry.

ISLE OF WIGHT.—Qualified Assistant required for General Retail, Dispensing and Photography. Give particulars, apprenticeship and outline other experience. State age, salary required; outdoors. Enclose stamped addressed envelope for return of photo and references. Giles, Chemist, Totland.

LEAMINGTON SPA.—Competent Assistant wanted; must be good and accurate Dispenser, with knowledge of Photography; lady or gentleman. Send full particulars of experience, salary required, photo (to be returned), to J. Kenyon Tenk.

LONDON.—Qualified man; accurate Dispenser and Counterman; age about 30, single; permanency, outdoors. Apply in writing first, stating age, height, experience, references, and salary required, and enclosing recent photo (which will be returned). Coffman's Pharmacy, 6 Bloomsbury St. W.C.

LONDON, Central.—Outdoors. Junior, male, unqualified, over 26, for Dispensing and Counter; brisk cash business, no Sunday or Bank Holiday duty; experience in selling photographic goods an advantage. Give full particulars, including total experience, salary required, etc. Crowe & Co., 19 Street, Regent Street, W.1.

LONDON, E., SUBURB.—Qualified Manager, middle-class might suit, for working-class Retail Prescribing business, small salary and commission; also unqualified Manager for Drug Stores; good Prescriber. Apply, stating age, experience, salary, etc., 24/769, Office of this Paper.

LONDON, N.—Qualified Assistant, experienced Dispenser accustomed to take full charge; age 30-40; salary £4 with commission and free furnished living accommodation; lead to permanency. Write, W. King, 7 Green Lane, N.16.

LONDON, S.E.—Wanted, at once, Qualified Assistant, male, lady or gentleman, for light Retail and Dispensing business, working-class district; moderate salary. Apply, with usual particulars, to 56/180, Office of this Paper.

LONDON, S.W.—Unqualified Assistant required for quick class business; neat and accurate Dispenser, smart Sales Window-dresser; knowledge of Photography; alternate Sunday duty; highest references essential; full particulars, age, height and salary required. 56/27, Office of this Paper.

LONDON, W.—Unqualified Male Assistant required for a good class Dispensing and Retail business; must be an accurate Dispenser, good Window-dresser, and have a knowledge of Photography; moderate hours. Apply, giving full particulars in instance, to 58/1, Office of this Paper.

MALVERN.—At once, season, Assistant for good-class business; Dispensing and Counter work; must have had photographic experience; short hours. Apply with usual particulars enclosing photo if possible, to N. Swindle, Chemist, Malvern.

MANCHESTER.—Junior or Improver wanted. Please state age, height, experience, when disengaged, and salary required (outdoor). Jeans, 151 Oxford Road, Manchester.

MANCHESTER.—Wanted shortly, Branch Manager; qualified good opportunity for young, energetic, and active man. Light Retail; knowledge of Optics (but not essential). Full particulars and salary required to D. Abrams, M. Chemist, 12 St. James Road, Hightown, Manchester.

MANCHESTER.—Lady Assistant wanted; quick and accurate Dispenser, good Counter-hand; Window-dressing experience desirable, but not essential. State qualifications (if any), salary required, full particulars, 58/24, Office of this Paper.

MIDLANDS.—Wanted, at once, unqualified Assistant; N.H.I. Dispensing and Photography. State experience and salary required. 55/11, Office of this Paper.

EFFIELD.—Qualified Assistant, outdoor, age 25-35, for front Counter and Window-dressing; experience in handling orders essential. Please state clearly in first letter age, etc., where apprenticed, other experience, salary required, enclose photo if possible. Address, Mr. Austen, c/o News-ers, Ltd., Chemists, 27 High Street, Sheffield.

FOLK Seaside Resort.—Junior Assistant or Improver wanted for Photographic Department. State age, height, (indoors or outdoors), when disengaged, and name of last employer. 56/21, Office of this Paper.

WEST-END. Assistant, used to high-class trade; one with Continental experience preferred. Apply 57/14, Office of Paper.

WINTON, Soms.—Assistant; young, willing, medium height and build; whole or part-time; light mixed Retail; moderate references, salary, etc., in first letter. Applications not received ten days respectfully declined. 58/20, Office of this Paper.

A.A.—WANTED shortly, an energetic Manager for branch establishment in Midlands; thorough knowledge of Photography and Optics essential; age 30-35; married; preferably unmarried, though not essential; middle-class cash business; must be willing, adaptable, a good man and Dispenser, with knowledge of modern business methods. Send references and photograph, state height, and salary required. 57/24, Office of this Paper.

WIMBORNE Lady Dispenser required for N.W. district; Hall Certificate; must have had shop experience. Apply by giving full particulars of training, experience, age, and salary required, to 24/770, Office of this Paper.

WIMBORNE qualified man required for London, eventually to manage Company Shop; must be willing to put prospect salary for the present; excellent opportunity for keen man. Age, experience, lowest salary, to Stanleys, 83 Lordship Road, Wood Green, London.

WIMBORNE Assistant, male, unqualified, required at once; quick Counter and Dispensing; knowledge of Photographic references, salary required, etc., in first letter; photographs sent only if stamped, addressed envelope enclosed. If no in 10 days, applicants please consider vacancy filled. S. M.P.S., Pharmacist, Nottingham.

WIMBORNE Applications invited for position of Branch Manager; applicants must have initiative and good business ability. or qualified Chemists' Optician to manage Optical Department must have good experience in Optical work; permanencies right men; Lancashire town. Apply, giving full particulars, 6/30, Office of this Paper.

WIMBORNE STANT; unqualified; age 23-28; N.H.I. Dispensing; comfortable berth; must have good references. Apply per-sonally, Austin's, Ltd., 1 Spa Road, Bermondsey.

WIMBORNE STANT, 25-35, immediately; good Counterman and Photographic Salesman essential; outdoors. Height, age, etc., when disengaged, salary required, references, etc., in first letter, Barker, 129 High Street, Watford.

WIMBORNE STANT; Southall, Middlesex; lady or gentleman M.P.S. in the 7th May; must be thoroughly experienced in all lines of the trade, tactful and obliging to customers, and a Dispenser. Apply, stating age, salary, enclosing photo, and full particulars, 56/17, Office of this Paper.

WIMBORNE NCH Manager for good-class business in N.W. district; sell up in Photography, and must have had thorough experience. Give full particulars to 24/764, Office of Paper.

WIMBORNE DISPENSER.—Gentleman, unmarried, 24 or 25, required as above; must be neat writer and have had good previous experience. Send full particulars, salary required, and photo, Reid, 2 Queen Street, Exeter.

WIMBORNE ASSISTANCE wanted; three or four evenings a week including Saturdays, 6 to 8, for little Dispensing and light work; careful, reliable Dispensing essential; near Elephant and Castle. Apply 57/33, Office of this Paper.

WIMBORNE OR Assistant, male, for good-class family business; one with some Photographic experience preferred. Full particulars, experience, age, salary required, etc., and photograph to Mr. Neve, 10 Victoria Parade, Norbury, S.W.16.

WIMBORNE Assistant required for a business in pleasant country town. State full particulars, outdoors, and enclose photo, will be returned. "Wales," 54/34, Office of this Paper.

WIMBORNE Assistant required; must be reliable Dispenser, with good general knowledge and experience. State full particulars, salary, etc., to R. E. Gibbins, Ashted, Surrey.

WIMBORNE S & BURROWS have a vacancy for an experienced Counterman, outdoors; West-End. Apply, 146 Holborn Circus, London.

WIMBORNE MANAGER required for Rickmansworth branch; must be thoroughly reliable and experienced; about 30; a good Window-dresser, with Photographic knowledge; tactful and obliging with customers; accommodation could be provided. Apply by letter, giving full particulars, to Parke's Drug Stores, Ltd., 65 Harwood Street, Chalk Farm, N.W.1.

WIMBORNE MANAGER wanted for small branch establishment (single-handed), in the Midlands; married man preferred; must have had good experience, reliable, trustworthy, and energetic; to live over premises. State full particulars, salary required, and enclose photo, to "Aspirin," c/o British Drug Houses, Ltd., Graham Street, City Road, N.

WIMBORNE OPENING for qualified Dispenser. Apply, by letter only, to General Manager, 50 Wigmore Street, W.1.

WIMBORNE PHARMACIST required; permanency and good prospects. Apply by letter, giving usual information, Timothy White Co., Ltd., Portsmouth.

WIMBORNE QUALIFIED Assistant wanted for summer months; must have had good experience, and excellent references. Apply, stating full particulars, to Wm. Fox & Sons, Ltd., 109, 111, 113 Bethnal Green Road, London, E.2.

WIMBORNE QUALIFIED lady wanted; opportunity for Retail experience given. 54/35, Office of this Paper.

WIMBORNE QUALIFIED Branch Manager required, also unqualified Assistant. Full particulars of previous engagements, salary required, age, height, etc., to Managing Director, Henry Hodder & Co., Ltd., 5 Nelson Street, Bristol.

WIMBORNE QUALIFIED gentlemanly Assistant, 25-30, for new branch business; good Counterman and Window-dresser essential. State age, experience, and salary required, and enclose photo. Lester, Chemist, Canterbury, Kent.

WIMBORNE QUALIFIED Assistant wanted, accustomed to N.H.I. Dispensing and Cash Counter trade. Usual particulars to Goosey and Rogers, 51 Ben Jonson Road, Stepney, E.1.

WIMBORNE QUALIFIED; elderly; part-time; N.H.I.; no Counter. Please state terms; S.E. district. "Aspirin," 57/22, Office of this Paper.

WIMBORNE RELIABLE, experienced Woman Assistant for good-class light Family Retail, Dispensing and Kodak business; outdoors; must be well up in the retail, and capable of undertaking all branches, including D. & P. work, without supervision; no Sunday duty and no N.H.I. dispensing. Will applicants, in the first place, send full particulars only, no photos or testimonials. Frederick Postlethwaite, Chemist, Hoddesdon, Herts.

WIMBORNE SALESWOMAN in Chemist's high-class Toilet and Perfumery Department. State in first letter fullest particulars as to education, business training, and subsequent experience, age, height, and salary required; enclose photo and copies of testimonials. Newsholme's, Chemists, 27 High Street, Sheffield.

WIMBORNE SEASIDE Resort; Qualified Assistant for season; high-class Retail; knowledge of Photography. Full particulars in first letter. Applications not replied to within seven days respectfully declined. 57/15, Office of this Paper.

WIMBORNE WANTED, Junior Assistant; outdoors; work Light Retail and Dispensing. Apply, stating age, height, salary required, when disengaged, photo if possible, also references, to G. Henley, Chemist, Lyme Regis, Dorset.

WIMBORNE WANTED, qualified Locum last two weeks July and all August. State age, references, salary required, with photo, to Allen & Lloyd, Aldershot.

WIMBORNE WANTED, Assistant, unqualified; 25-35; Counter, Window-dressing, and Dispensing knowledge essential. State references, salary required, with photo, to 24/765, Office of this Paper.

WIMBORNE WANTED, permanency if suitable, Junior Male Assistant for first-class Dispensing and Light Retail; no N.H.I.; must be good Salesman, and have sound knowledge of Dispensing, Kodaks, and other Photographic Goods; age 26-36. Apply, stating salary required, to McKinnell, Chemist, Northampton.

WIMBORNE WANTED, at once, smart, gentlemanly Assistant for light Retail Dispensing and Photographic Business. Apply, with full particulars, and photo if possible, to W. Hill, Pharmacist, Westgate-on-Sea, Thanet.

WIMBORNE WANTED, middle of May, experienced Assistant; good Counterman and Dispenser; abstainer; good address (outdoor). References, photo (if possible), salary required, and full particulars to Holt's, Chemists, Scunthorpe.

WHOLESALE.

The ADVERTISER may if preferred have replies addressed to this Office, and forwarded on payment of an additional charge of 1/-.

ACTIVE Representative wanted, with live connection, calling on Chemists in South Wales and the West of England, to take up good side line on commission basis. Apply 24/771, Office of this Paper.

CHEMICALS.—An old-established firm of Chemical Merchants in London require an energetic young man with a good knowledge of the trade to take up Buying and Selling and general market work; must have first-class references; give full particulars of qualifications and salary required; salary and commission would be entertained to a suitable man. Reply, by letter, to "B.," c/o G. H. Hine, 21 Bush Lane, Cannon Street, E.C.4.

COMMISSION.—Gentleman, calling upon Wholesale and Retail in North and West of England, to sell Pills and Tablets for well-known Midland House. 24/766, Office of this Paper.

DRUGGISTS' Sundries House requires Representatives with connections for the following territories: Lancashire, Yorkshire, Midlands, North and South Wales; part-time not objected to providing goods do not clash; part expenses and commission. 58/2, Office of this Paper.

PROGRESSIVE and well-established Manufacturing Chemists and Druggists' Sundriesmen require a first-class Representative for area comprising Lancashire, Potteries, Manchester, and Sheffield districts; must be good salesman. Apply, giving full particulars, experience, and salary required, to 24/762, Office of this Paper.

REPRESENTATIVE wanted calling exclusively on Retail Chemists and Druggists in Manchester, Liverpool and surrounding towns; one in Yorkshire, one in Birmingham and surrounding towns, one in the Potteries. "A. A. M.," c/o Lee & Nightingale, Advt. Offices, Liverpool.

REPUTABLE House, with factory in the country within 30 miles of London, require the services of a Lady Supervisor in their Packing Department; applicants must have had similar experience with reputable house, be able to exercise courteous and complete control over a large staff of girls; Welfare experience would be a great advantage. Write, stating age, experience and salary required, to "R. K.," 54/37, Office of this Paper.

SPECIALITY Salesman wanted by Yorkshire firm for London and the South Coast; original preparations; thousands of testimonials already received; unrivalled opportunity for energetic and real live man who can command business, and accustomed to big earnings; small samples; if successful, would provide car; choice of commission only, or salary, commission, and expenses. Apply, 56/33, Office of this Paper.

WANTED. Warehouseman-Porter; must be good Packer with all-round experience. Apply, stating age, experience, and wages required. Hours 8-7. Good wages to willing worker. 54/30, Office of this Paper.

SITUATIONS WANTED.**RETAIL****[HOME.]**

2s. for 18 words or less; 6d. for every additional 10 words or less, prepaid.

The ADVERTISER may if preferred have replies addressed to this Office, and forwarded on payment of an additional charge of 1/-.

A.A.A.—LOCUM, experienced all branches, booking dates; Photography; take entire charge; abstainer; disengaged. "Chemicus," 2 Christian Road, Preston.

A QUALIFIED, thoroughly experienced woman Dispenser wants post, Doctor, Institution, lock-up Surgery; would reside latter; Locums booked; moderate salary. "Dispenser," 108 Lower Richmond Road, Putney, S.W.

A.A.A.—QUALIFIED, 26; Manager or Assistant; first-class experience; quick, accurate Dispenser; Prescribing, Photography, Window-dressing; tall, single, energetic, and willing; disengaged shortly; London or Provinces. 24/768, Office of this Paper.

A—ASSISTANT (unqualified), single, desires post; good-class experience Photography, etc; references excellent. Write, 57/17, Office of this Paper.

A QUALIFIED young lady; 4 years' excellent Dispensing and Counter experience; highest references; Brighton or district. Dale, 31, Highdown Road, Brighton.

A LADY Dispenser (Hall); knowledge Book-keeping, Typewriting, Dressings; excellent testimonials, Chemists, Doctor Institutions; active, capable; long experience; permanent or temporary position. "S.," 45 Nimrod Road, Streatham Park S.W.

ASSISTANT, Counter, Windows, Stock, light Dispensing, manage Drug Stores; 50s., provinces; excellent experience references. "Fortunalis," 55/3, Office of this Paper.

ASSISTANT, 5 ft. 9 in., 8 years' first-class experience, Dispensing, Photography, Counter, and Window Display, disengaged, requires post in London. Please state salary. Bank 28 First Mansions, Muswell Hill, N.10.

ASSISTANT, 30, tall, unqualified, married, accurate Dispense Photography, Counter, Windows, languages, exception experience, desires permanency. 55/17, Office of this Paper.

ASSISTANT, 25, referred one subject, seeks situation, Fylde or Preston district. "H.," 100 Granville Road, Blackpool.

ASSISTANT; unqualified; Senior; season or permanent; all district; experienced all branches; accurate Dispensing, Counter, Photography; not afraid of work; 7 years last berth "Rhei," 8 Albany Road, Falmouth.

ASSISTANT, Senior; unqualified; temporary, season or permanent; any district; 7 years' last berth; all-round experience; accurate Dispenser; not afraid of work. "Rhei," Windsor Place, The Hoe, Plymouth.

ASSISTANT or Branch Manager; unqualified; age 38; married; permanent; excellent all-round experience; Dental 1921, Prescribing, Photography, Dispensing, and Optics; salary £3 10s. per week. 57/16, Office of this Paper.

AS Manager, Managing Assistant; qualified; 32; single; go experience, Photography, etc. 58/8, Office of this Paper.

AS part-time Dispenser to Chemist or Doctor (engaged morning); reliable; small salary. "Miss K.," 57/28, Office of this Paper.

AT once, Dispensing Counter, Stock; best experience; temporary, permanent; 43; unqualified. "Chemist," 11 Kimdown Road, Holloway, N.19.

BRANCH Manager, qualified, married, 33, 17 years' all-round experience, including management. "Pharmacist," Agnes Grove, Liscard, Cheshire.

BRANCH Manager; age 28 years; married; town and country experience; disengaged shortly; living accommodation essential. Apply 54/29, Office of this Paper.

BRANCH Manager, age 42; qualified; experienced Window dresser, Prescriber, and business pusher; 10 years' managing experience. "W. G. J.," (P.C.B. 30/10), Office of this Paper.

BRANCH Manager or Assistant; unqualified; 53; Dispensing Counter; salary moderate; London only. "Hodie," Fletching Road, Clapton, E.5.

DISENGAGED; part-time; Minor qualification; male; West suburb preferred. "Pharmacist," 3 Regina Road, Ealing W.13.

DISENGAGED.—Locum; thoroughly competent; all-round experience; town, country; in or outdoors; dates. "Aspirin," 239 Camberwell New Road, S.E.5.

DISENGAGED May 5; Locum or permanent; qualified; experienced; Photographic; 4 years present situation. "Pharmacist," 71 Trafalgar Road, Wallasey.

DISENGAGED.—A qualified young lady; 10 years' excellent Dispensing experience; highest references; Doctor, Institution, or Chemist. 58/19, Office of this Paper.

DISPENSER (Hall); daily; lady; thoroughly experienced Doctor, Institution; whole or good part-time. "M.," High Road, Streatham.

ELDERLY Pharmacist, Hospital Locum, as Dispenser, Pharmacy, Surgery, N.H.I., or cover; part-time entertaining "Chemist," 37 Vestry Road, Camberwell, S.E.

GENTLEMANLY Assistant, reliable, highest references, abstainer, all-round experience, requires permanent position with prospects; North preferred. "Chemicus," 6 South Road, Kendal.

IMPROVER, 21, desires good Dispensing experience; served 3 years' apprenticeship, good business; knowledge Photographic; salary moderate; disengaged; good references; Bristol or near preferred, not essential. Browning, Henbury, Bristol.

J. REES, M.P.S., Cross Hands, Llanelli, strongly recommended his Junior Assistant; reliable and energetic.

ADY Dispenser (Hall), 6 years' experience, requires a post with Chemist to get a more extended Counter experience; moderate salary. "C," 56 St. George's Road, Forest Gate, E.7.

ADY Dispenser (Hall) requires post anywhere; good experience with Doctors; Book-keeping; small salary. Apply, 65 Lyfair Avenue, Ilford, Essex.

ADY (Hall), experienced Private Practice and Institutions, desires post; Institution preferred; would do Locum. G. Farrell, Calow, Chesterfield.

OCUM, reliable, every experience and excellent references, 36, 6 ft., 7 years' present situation (London), unqualified, likes change; East Coast or Midlands; booking dates forward; 10s. indoors, £4 4s. out, plus fare. 54/33, Office of this Paper.

OCUM, qualified, 38, experienced, booking forward from May; N.W. or S.W. England preferred. Bulls, Little Treack, Lelant, Cornwall.

OCUM, qualified; May 7 to June 2; fortnight July and September; abstainer; reliable. Dear, 111 Royal Parade,bourne.

OCUM; disengaged till June; good all-round experience; West-End Dispensing; South Coast preferred. "H. S.," Cottage, Hambrook, Emsworth, Hants.

OCUM or relief; qualified (1911); reliable; experienced; disengaged until May 19. C. E. Beer, 98 Greyhound Lane,atham Common.

.P.S., 26; Manager or Assistant; thoroughly capable; shortly disengaged; permanency preferred. V. Gill, 73 Royal Park Avenue, Leeds.

.P.S., 52, as Manager; sober, honest, industrious; 16 years' Store experience; town or country. 58/21, Office of this Paper.

MANAGER, with view to succession; qualified; 10 years' experience as manager; disengaged. "J. G. W.," (P.C.B.), Office of this Paper.

ART or Whole Time.—Young lady, Minor; energetic; West-End Dispensing experience, Counter, Photography; London preferred. 55/16, Office of this Paper.

PHARMACEUTICAL Chemist, 25; single; 3½ years' war service; sound theoretical and practical experience; Liverpool district preferred. M.L. 812/23/3, Office of this Paper.

PHARMACIST, 17 years' good all-round experience, desires post as Manager or Senior; would prefer Partnership with to succession; agricultural district preferred; living accommodation required. 55/9, Office of this Paper.

QUALIFIED Chemist; elderly; Hospital or Institution; 11 years' Hospital experience. "Chelsea," 22 Bramerton St, Chelsea, S.W.3.

QUALIFIED Man, with West-End experience, tall, energetic and reliable, Square-trained, requires Assistantship in on. H. N. L., 46 Compton Road, N.21.

QUALIFIED; 24; tall; energetic, willing; all-round experience Dispensing, Photography, Counter; disengaged June 1; district preferable. J. G., 30 Pier Road, Brith, Kent.

QUALIFIED; Married Man, abstainer, energetic and reliable, seeks Managership. Thomas, 34 Vincent Square, Westminster, S.W.1.

QUALIFIED; 24½; tall; energetic, accurate Dispenser; disengaged shortly; permanency required; particulars and nces. Meynell, 15 The Friars, Canterbury.

QUALIFIED Locum; elderly; well recommended; disengaged; May, part June; terms moderate. Allen, 17 Princes Road,ledon.

QUALIFIED; middle-aged, active, single; good all-round experience; best references; moderate salary; town or country; aged May 12. J., c/o Messrs. Parrott's, Chemists, Bishop'sord.

QUALIFIED; Manager or Locum; Dentist; experienced all branches; smart Counterman; disengaged. "M.P.S.," Hale Road, Farnham.

QUALIFIED desires change; present post 3 years; tall; 32; single; good London experience; moderate salary. 57/11, Office of this Paper.

QUALIFIED, 35, tall, married, seeks permanent position as Manager or Assistant; all-round experience; thoroughly lent and trustworthy; excellent references. "Rex," 57/10, Office of this Paper.

QUALIFIED, 31, married, would welcome post of responsibility where living accommodation is available; 12 years' experience. "M.P.S.," 56/37, Office of this Paper.

QUALIFIED desires berth as Manager or Senior; tall; 16 years' high-class Dispensing, Counter, Photographic, and business experience; Eastern Counties or near London preferred, not essential; permanency; state terms. 58/26, Office of this Paper.

SCOTSMAN, qualified, 23, desires permanency; Retail; good all-round experience; moderate salary; disengaged. 55/24, Office of this Paper.

SUPERINTENDENT; Cover or other capacity; qualified; single; 50; best references; wages, good home only or equivalent. "Chemist," 23 Wellclose Mount, Leeds.

UNQUALIFIED; age 26; Manager Drug Stores or Assistant; Wholesale and Retail experience; excellent references. 29/540, Office of this Paper.

UNQUALIFIED Junior requires change; four years' experience Dispensing and Counter; reliable, trustworthy. Hazeldine, 36 Dartmouth Road, Olney, Bucks.

UNQUALIFIED Lady requires post; London or vicinity; seven years' experience Retail Dispensing; good references. 330 Cowley Mansions, Mortlake.

UNQUALIFIED; single; good experience Dispensing, Counter, and Photography. E. Searle, 2 Carlisle Avenue, Plymouth.

UNQUALIFIED; married; 28; sound experience, Counter, Dispensing, Photography, Widow-dressing; S.E. district preferred. "Reliable," 57/12, Office of this Paper.

UNQUALIFIED, 20, desires post; Counter and Dispensing; 7 years' previous experience; good references. 57/9, Office of this Paper.

WANTED, easy position, Chemist, Hospital, Stores; retired Chemist; elderly; comfortable position first consideration. "Pharmacist," 88 Trafalgar Road, Wallasey.

YOUNG lady, experienced and of good address, requires position Toilet Department or Counter; good Stock-keeper; highly recommended; moderate salary. Miss Delves, Furnace Farm, Hawkhurst.

YOUNG lady, qualified, requires post; 4 years' experience in Counter, Dispensing, and Photographic work; good reference. Humfress, 5 St. Matthew's Place, Ipswich.

55/- WEEKLY.—Unregistered, reliable Assistant requires post; London preferred, but not essential; 15 years West-End; good references; accustomed to take charge; abstainer; Dispenser. "Cortex," 29 Bedford Road, Clapham, S.W.

£2 weekly (outdoor), to gain further experience; knowledge of Dispensing, Book-keeping, Photography; references. Jay, 18 Grenfell Road, Maidenhead.

WHOLESALE.

2s. for 18 words or less; 6d. for every additional 16 words or less, prepaid.

The ADVERTISER may if preferred have replies addressed to this Office, and forwarded on payment of an additional charge of 1/-.

A.R.C.S., B.Sc., 1st class hon., 22; Public School education; French, German, fluent, some Russian; experience as Assistant in Research Laboratories and with Gas Company. M.L. 53201, Office of this Paper.

ADVERTISER, age 23, seeks position as Representative to Drug, Sundries, Toilet, or Specialities House; had 8 years best retail experience; would work hard for good house offering prospects; Lancs., Yorks. or Midlands preferred. 49/7, Office of this Paper.

ADVERTISER, 35, with 19 years' experience Drug and Chemical trades, seeks post as Buyer, Departmental Manager, etc., with London or provincial firm; thoroughly conversant with both trades; Buying, Costing, Shipping, Stock-keeping, etc.; can furnish excellent references; any reasonable salary accepted. Whittaker, 30 Derby Street, Moss Side, Manchester.

ADVERTISER, age 23, seeks position as Representative or Assistant Representative to good Wholesale House; Yorkshire or Lancashire preferred; 8 years' first-class Retail experience. "Tannic," 55/26, Office of this Paper.

ADVERTISER, capable entire manufacture and control, Tablets, Capsules, Toilets, and General Pharmaceutical, Medicated Dressings, Socks, and variety of Sundries Specialities; good organiser and disciplinarian; sound experience, leading firms. 57/6, Office of this Paper.

AS Assistant Chemist (Works or Research), 24, B.Sc. (Hons.), Lond.; good knowledge of French, Physics and Maths.; 3 years' war service; willing to take any position to suit qualifications. M.L. 4467/22, Office of this Paper.

ASSISTANT, 41; married; knowledge of Optics, Photography, Surgical Goods, Wholesale Dry Salting, Pickles, Sauces and Jam Making, Packed Goods; experience of Mineral Water trade, including making of Cordials, Non-alcoholic Beverages and Essences; has experience Traveller in above in North of England and South of Scotland; willing to take any position. M.L. 99264, Office of this Paper.

ASSISTANT Chemist (Works, Laboratory), 28, Public School, B.Sc. Inter. (Lond.); French fairly fluent, some German; scientific knowledge both languages; has had some commercial experience; willing to take any post. M.L. 4772/22, Office of this Paper.

ASSISTANT Manager or Secretary, 34, B.A.; married; training in Engineering and Chemistry; 3 years' experience Government Training Department; expert training and experience with paper-making firm as Chemist and Manager; good organiser and disciplinarian; excellent references and testimonials. M.L. 1606/23, Office of this Paper.

AS Representative; qualified Chemist; only first-class firms; connections, terms, salary, expenses, and commission; shortly disengaged; permanency sought. "Phoenix," 58/5, Office of this Paper.

BACTERIOLOGIST and Pharmacist, 28; 5 years' war service; M.P.S.; 5 years' Laboratory experience in Bacteriology; willing to take any post. M.L. 1456/23, Office of this Paper.

BUSINESS proposition for firm with Specialities or Proprietary to be efficiently represented by two experienced Travellers working in conjunction, and covering Lancashire, South and West Yorkshire, Cheshire, North Wales, Lincolnshire, and all Midland Counties; 20 years' sound connection; live accounts with leading Wholesale and Retail Chemists; open to consider one additional line on commission and part expenses. 56/26, Office of this Paper.

BUYER, Assistant, or other responsible position; experience in Drugs, Chemicals, Patents; replies treated in strictest confidence. P.C.B. 30/7, Office of this Paper.

REPRESENTATIVE for Electro-Medical Apparatus; 30; single; Victoria University of Manchester and Manchester College of Pharmacy; experience with Pharmacists and Electrical Engineers and as Electro-Medical Attendant. M.L. 10922/3, Office of this Paper.

REPRESENTATIVE, with London connection, Drugs, Sundries and Proprietary lines; experienced Salesman; excellent references. P.C.B. 29/34, Office of this Paper.

REPRESENTATIVE.—Smart man, with over 20 years' experience in Surgical Dressings and Sundries, is open to engagement; accustomed to call on Hospitals, Wholesale Drug Houses, and Surgical Instrument Makers; is acquainted with buyers in London and all large towns in England, Scotland, and Ireland. Replies, P.C.B. 30/5, Office of this Paper.

STORES or Wholesale.—Competent man seeks berth; thorough experience London Departmental Stores; used to Stock-keeping, Counter, Post Orders. R. Tyler, 84 Montholme Road, Wandsworth Common.

TECHNICAL and Research Chemist, 33; married; 5 years' war service; educated Public School and Technical College; Diplomas; Chief Assistant to leading Consulting Chemist; 5 years' Laboratory experience; specialises Acids, Oils, Sugar, Metallurgy; good organiser; willing to take any post. M.L. 1469/23, Office of this Paper.

TRAVELLER.—Qualified Chemist, extensive and live connection (mainly with Chemists) in Midlands, also in West of England, earnest worker, seeks re-engagement with Wholesale or Proprietary House; can influence extensive business; experienced Salesman; first-class record and undeniable references; disengaged. 58/23, Office of this Paper.

Price lists, trade circulars, samples, and printed matter can in no case be forwarded, the Box numbers being intended exclusively for specific answers to particular advertisements. The Publisher reserves the right to open and refuse to forward any communications received which he may consider contrary to this rule.

THE NATIONAL DRUG & CHEMICAL UNION

(Incorporating the National Association of Chemists' Assistants)

AIDS AND PROTECTS

those employed in all Branches of the Drug Trade; (Public Services—Retail—Wholesale—Manufacturing)

WRITE FOR PARTICULARS—H. R. NIGHTINGALE, M.P.S.

General Secretary,

149 Newington Causeway, LONDON, S.E.1

WHOLESALE.—As General Packer; Perfumery, Essences, Oils; good experience; excellent reference; can take charge disengaged. P.C.B. 30/3, Office of this Paper.

£2 weekly; London preferred; experience as Warehouse Manager; some Dispensing, Book-keeping; references. A. A., 18 Grenfell Road, Maidenhead.

[COLONIAL, INDIAN AND FOREIGN.]

ENGLISH Chemist desires position in France, Switzerland or Belgium; free May 1. "Anglais," Pharmacie Masse Hyères, Var, France.

MISCELLANEOUS.

10s. for 60 words; 1s. for every additional 10 words or less

SECOND-HAND CHEMISTS' FITTINGS.—We have an exceptionally fine selection of these in all sizes; prices are right and goods are in first-class condition; we shall be pleased to supply particulars and prices. Call or write, RUDDUCK & CO 262 Old Street, London, E.C.2.

SHOP FITTINGS.—Large quantity of Showcases, Fitting ready for use; Silent Salesman, All-glass Counters, Dispensing Screens, Oak Window Fittings, etc. PHILLIPS JOSEPH & SONS, LTD., 93 Old Street, London, E.C.1.

CHEMIST offers Wall Fittings in Edinburgh, suitable for shop 20 ft. x 15 ft., which must be sold owing to vacation of premises. Particulars from A. Barbour, M.P.S., Chemist Walkerburn.

LIMITED COMPANY FORMATION.

Before placing your Company in other hands, get my quotation. I specialise in Chemist and tradesmen private companies and quote inclusive charge; no extras. A. B. Slack, 180 Garston Old Road, Liverpool.

EXCHANGE COLUMN.

2d. per word: Minimum 2s.

FOR DISPOSAL.

12/6 MACK'S LEDGERS, 2 year; 21s. 4 year. Mack-Ivy 45 Hightown, Crewe.

OL. LAVAND. (Mitcham); guaranteed about 8 lbs. What offer whole or part? Kilton, Savile Street, Hull.

WHAT OFFERS?—6 dozen assorted 2oz. Perfume Cut Glass Bottles; cost 7s. Neeson, 680 Romford Road, Manor Park.

MICROSCOPE, by Cary, $\frac{1}{4}$ in., $\frac{1}{2}$ in., 1 in. objectives, with "Minor" Botanical Slides, by Flatters & Garnett; first offer of £5 accepted. "Spirogyra," 4 King Street, Richmond Surrey.

THE CHEMIST AND DRUGGIST for 1921 and 1922, complete with Diaries. Offers to Walter Hall, 20 Victoria Street Littleborough, near Manchester.

WANTED.

TWO or three Second-hand Glass Counter Cases. Clarke, Ltd. Chemists, Newport.

LARGE GLASS PERCOLATORS. Send full particulars Renouls, Ltd., Burrard Street, Jersey.

"BOTT" SPECIMEN BOTTLES, various sizes. Offers 24/763, Office of this Paper.

PHARMACEUTICAL Books wanted; send priced list. Gower Bookseller, 41 Voltaire Road, Clapham.

RADIUM SALT, pure of Residues, old Applicators, etc. Apply Harrison Glaw, Radium Laboratories, 156 Clapham Road S.W.9.

SHAVING CREAM FORMULA.—£5 offered for first-class recipe; must be original and well tried. Send particulars 58/7, Office of this Paper.

MORNY

SELS AROMATIQUES

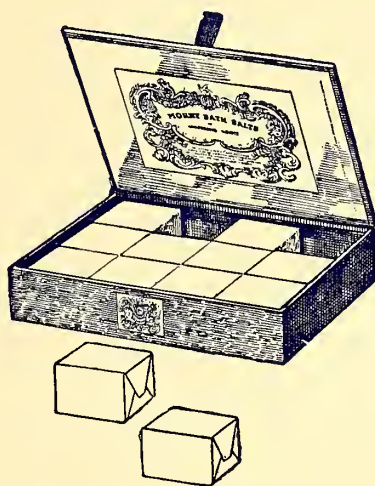
COMPRIMÉS

POUR LE BAIN

(BATH SALTS TABLETS)

are satisfactory stock for the Chemist desirous of increasing his connection among the well-to-do, for the following reasons:—

1. They are the Original Bath Salts in compressed form
2. They are perfect pharmaceutical products.
3. They are stable under all climatic conditions.
4. They are artistically presented.
5. They are not only superior in quality and effect, but actually more moderate in price than their many imitations.



6. They are one of the most popular lines in the complete series of Toilet products issued in each of the Morny Speciality Perfumes which comprise such favourites as

"June Roses,"
 "Chaminade,"
 "Mystérieuse,"
 "Nocturne,"
 "Yesha,"
 "Violette Morny,"
 "Triomphe,"
 etc.

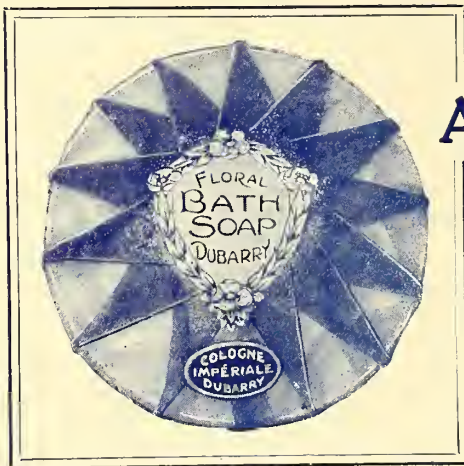
The Morny Fine Perfumery Products are an adornment to the Highest Class Pharmacy and attract the best type of customer.

EXTENSIVELY ADVERTISED IN THE PRESS.

Artistic Showcards and Descriptive Pamphlets on request.

Apply for Terms and Prices to—

MORNY FRÈRES, LIMITED, 6 NEW BURLINGTON STREET, LONDON, W.1.



A TOILET SOAP

OF SUPREME QUALITY,
made from the choicest
materials and delightfully
perfumed.

DUBARRY'S ORIGINAL BATH SOAP IN CRYSTAL SHAPE TABLETS

THE RICH ARTISTIC
COLOURS of the trans-
parent wrappers and unique effect
produced command attention and
form an irresistible centre of
attraction in window and counter
displays.

SOME OF THE PERFUMES & COLOURS OF THE WRAPPERS

"Golden Morn" - - - -	Orange
Lavender & Rosemary - - - -	Mauve
Cologne Impériale - - - -	Green
Roman Hyacinth - - - -	Blue
Rose d'Antan - - - -	Red
Verbena - - - -	Yellow

Retails at
Per 1/- Tablet

Wholesale Price
Per 96/- Gross

CARRIAGE PAID,
IN GROSS LOTS,
thus yielding 50%
PROFIT on COST.

**PACKED IN
SHOW BOXES
OF SIX
TABLETS**

THE UNWRAPPED

CRYSTAL SHAPE TABLET

(Registered Design)

